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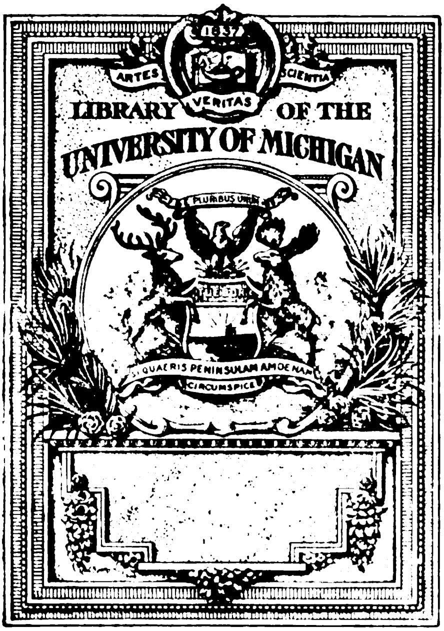

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RECENT EPIDEMIC OF SMALL POX IN MARION, O.

BY ROBERT C. M. LEWIS, M. D., MARION, O.

Much has been written on the subject of variola within the past five years, and the opportunity for the study of the disease has been so great in the United States during this period, that the fairly intelligent physician would be hardly excusable for not being informed. Yet many and fierce have been the discussions over diagnosis in cases of mild, irregular and so-called pseudo small pox. Disputes among physicians have misled the laity and thus occasioned unnecessary contamination. I have been trying to keep in touch with the writers on this subject through the leading medical journals and have come to this conclusion, that physicians who have had cases that were somewhat uncertain and have pronounced them chicken pox, Cuban itch, fibrile lichen, etc., have usually come to grief; while those that guarded their cases, and were willing to err in favor of their patrons rather than otherwise, have had little to answer for when criticisms were in order. I understand that many of these epidemics have been mild, and I presume many physicians have been, in a measure, excusable for making a faulty diagnosis, for as a rule, all that an under graduate of the present generation knows of small pox he has learned from his books or didactic lectures; therefore it has not been surprising that many physicians have overlooked, and been mistaken with their first case of this disease. This confusion should not come often to the average physician, and I do not believe it will come to the man who has once gone through the epidemic of even mild variola, for there are symptoms *always* present that I believe will enable the diagnostician to determine by exclusion, whether he has or has not a case of variola. Our city is at present cleaning house after going through a siege of small pox, and our epidemic was of the old classic variety, such as our elders are pleased to name the old fashioned small pox. It was so plain that, as Dr. Hole said, "Any one who was in the least familiar with the disease should have recognized it at once." Remarkable as it may seem one case was under treatment here for over three weeks and two for nearly ten days after the eruption appeared, before the residents of the community were made aware of the nature of the disease, and this too in one of the best sections of the city. I have made careful inquiry regarding the cases here that I had not seen, and those that I had under observation, I tabulated carefully from the first symptom until they were given a clean bill of health. My first case was A. T., a well-to-do young man aged 24, who stated that he had been assisting in the erection of a wind wheel a few days previous, and had taken a heavy cold. He was suffering from a violent headache, pain in his back and limbs, and sickness at the stomach, to use his expression he "just felt awful." His temperature was 104, and his pulse 120, his face flushed, and his eyes red, he was as he believed himself to be a very sick man. Prior to this case I had seen but two patients with variola, and that had been some years ago, therefore I was not suspecting the disease when I began the examination of this young man. My patient in answering questions suggested to me that he might be taking chicken pox. I said no, it was not chicken pox, as no person would be sick as he seemed to be with that disease; and moreover I stated that adults of his age did not have chicken pox. He disputed me at this point, and stated that his brother and mother both had the disease, and were very sick with it. This was a revelation to me, as his mother lived within two squares of my home, and at once I was suspicious that we had the real thing before us. He said that he had not been home, but the mother had been present at his wedding two weeks before and was taking the disease at that time. I had him made as comfortable as possible in bed, promising to see him in the morning following. The next day only confirmed suspicions. I quarantined the family, vaccinated his young wife and sister who were present, and informed the city Board of Health. The house was placarded, and a general scare was on in the neighborhood. I asked the health board to send for Dr. Probst, as I knew I would have trouble with some of my colleagues, as to my diagnosis. Dr. C. M. Hole of Cleveland was sent here, and I took him to see my case, then in the fourth day of the disease, and in the papular stage of eruption, he at once agreed that I was correct in diagnosing it variola. I cited him to the other cases, and he visited them in regular order. By this time five cases were to contend with, Mr. T.'s mother and brother, Mr. M., a next door neighbor, and a little six year old girl, all under treatment for chicken pox. The little girl was in the eighth day of the eruption, and had been nursed by the family and neighbors during this time, all believing it to be, as the physician stated, a bad case of chicken pox.

A consultation was held by the physician in charge of the first two cases, he claimed to have had an extensive experience in small pox and his consultant also made extravagant claims in the same direction; so a notice was published in the daily papers, the result of this consultation, both going on record that they knew their diagnosis to be correct. The physician treating the little girl was equally as positive that his case was chicken pox, aggravated by an attack of indigestion brought on from eating too many hickory nuts. The physician who treated Mr. T.'s mother and brother asked to see my patient, to which I objected, believing his opinion would not benefit the patient or myself. However, he visited the young man that night without my consent, and pronounced the disease chicken pox. The following morning, on learning of this break in professional ethics, I withdrew from the case, and my unprofessional colleague took charge of the patient. This case developed rapidly, and on the ninth day the young man died in violent delirium from confluent variola. I believe it might be of interest to some readers of this paper to follow the line of contagion in this epidemic, for in this we see how choice, apparently the germs of the disease, are in seeking new territory. A traveling salesman came here direct from the city of Cleveland to visit his mother, he was at that time in the first stage of variola; thinking his malady but a cold, he called a physician, who at once pronounced it chicken pox. This was our first case,—from the young salesman came all the following cases: The mother, one brother with his family of six persons, another brother, his wife, brother-in-law, wife and professional nurse. The mother carried the disease to the wedding where 70 persons congregated, but only three or four were contaminated. The little girl contracted the disease in the office of one of the physicians who was treating a case for chicken pox. The little one gave it to her father, brother, and the housekeeper, and an aunt, and two sisters of the housekeeper, followed in regular order, all contracting the disease from the little one during the week of her erruption while being treated for chicken pox. The disease was distributed along other lines, one young lady, a milliner, had only one chance of contamination, and that was from money paid her in the store. That came direct from the pocket of the young salesman, who had been paying out his money during the time he was supposed to have chicken pox. This young lady had a violent attack of the confluent form of the disease, and gave it to her mother, who had a light attack, proving that a mild attack may furnish material for a severe one, and vice versa. I was called to see a young married lady who was in labor, delivered her of a dead babe, perhaps a month before her term, and twelve hours later found the woman in a papular stage of variola, forty-eight hours later she was in delirium, and died on the ninth day with the hemorrhagic variety of the disease. The only wonder is that she survived for that period, considering her condition. In her case a peculiar tinge was noticeable with the eruption, a purple or livid sort of line encircled the larger pustules, and the entire body had almost an inhuman shape as a result of the swelling and general distortion. We could not dress her, but kept her between muslin sheets. We had two negatives made from her on the seventh day, but unfortunately they, along with several others of the same class, were destroyed while in the hands of an amateur photographer. This lady traced the contagion to a pump at which two families (one with small pox), secured water for family use. The wife of my first patient broke out in eruption twelve days after her husband died. I had vaccinated her, but an imperfect pustule followed, and I revaccinated her the day following her husband's death, it developed well but not in time to prevent her from having a mild attack of the disease.

In conclusion we give the result of our observation as to the effectiveness of vaccination. In answer to the question "Does vaccination protect against the disease?" We say yes; though we must admit that some queer freaks break in along our line of observation. During our epidemic here we found but three cases of varioloid. One case a young man of 30, vaccinated when a child, was in the house with other members of his family who were down with the disease, had all of the prodromal symptoms, chills, high fever, headache, backache, etc. Macular eruption for ten or twelve hours followed with only a few papules, and not to exceed a dozen pustules. Another, a woman of sixty, was taken with the usual symptoms of a severe attack, had been vaccinated at the age of twenty, a good crop of vesicles, but only a few pustulated. The third case was more unfortunate, a young man of twenty-five came here as an immune, and was engaged as a nurse. Had the disease three years ago, nursed a family of six through the disease and then was taken down and died on the seventeenth day. We had the usual experience here with physicians in regard to diagnosis. Some ridiculed the name of variola in connection with our epidemic. One in particular was positive of his diagnosis, but he lost the first case, and then very promptly signed the death certificate small pox. Another treated a case for indigestion, chicken pox, etc., until Dr. Hole, of Cleveland, pronounced it small pox. After Dr. Hole left the city, the attending physician returned to his original opinion and contended that he was right for several days, until a member of the afflicted family read up on the disease in the encyclopedia Britannica, and with that authority in hand he forced the obstinate (or ignorant) M. D. to back water. From our experience we have come to this conclusion, that no one who has observed carefully, either small pox or chicken pox, will make a mistake in diagnosis if the case is moderately severe. There are certain distinguishing characteristics in both chicken pox and small pox, that I believe should guide the diagnostician into safe waters. However, this territory has been so thoroughly gone over recently by more able writers that I will not digress. For our fair city we can truthfully congratulate the Board of Health for the prompt and efficient manner in which they quarantined every case, and every house that had been contaminated. With the number of exposures here, and the manner with which the disease was handled for the first three weeks, the only wonder is that we escaped with a death rate so low considering the malignancy of the disease. Our mortality was about six per cent, while that in the village of Prospect, ten miles away (the disease having extended to that point from this city), had a mortality of about forty per cent.

A few words as to treatment: Pure cod liver oil applied to the body will overcome completely the burning and itching that accompanies the disease. Sommos was the most satisfactory sedative we found for sleeplessness, delirum, etc. Equal parts of ichthyol and tincture of iodine were applied to the deep pustules to prevent pitting. Other symptoms were met as they presented themselves.

Our epidemic was cut short without doubt by prompt and wholesome vaccination, coupled with extreme hot weather. Had such exposures taken place in the winter time as we had here during the latter half of June and first week of July, the outlook for this city would have been something fearful to contemplate. That the hot weather antagonizes the germs of smallpox, we have had clearly demonstrated to us this season. That a person whose skin is loaded with moisture from perspiration is not nearly so liable to contagion as those in opposite conditions, has also been made clear, and that the so-called "characteristic odor" so frequently mentioned by certain writers, and held to so tenaciously by the laity, depends alone on the individual's secretions (same as the malodorous feet) and is only occasionaly present.

COLUMBUS HOSPITAL FOR WOMEN.—At the December meeting of the trustees of the Columbus Hospital for Women, Dr. J. U. Barnhill resigned as Chief of Staff and Surgeon. He had been connected with the hospital ever since its inception in 1889 (then the Christian Home), serving continuously on the staff as physician and surgeon, and except for an interim of two years he served as Chief of Staff.

Reorganization of Staff: In the reorganization of the staff of the Columbus Hospital for Women, Dr. T. H. Davidson was promoted to the position of Chief of Staff and Surgeon; Dr. Harvey C. Fraker, Pathologist; Dr. Frank McCafferty, Obstetrician; Dr. E. T. Kuhn, Physician; Dr. T. C. Courtwright, Pediatrist; Dr. C. S. Means, Ophthalmologist; Dr. C. P. Linhart, Rhinologist.

NASAL HEMORRHAGE.*

BY J. C. BISHOP, A. M., M. D., COLUMBUS, O.

The nose is the triangular prominence situated in the center of the face. It is composed of a bony and cartilaginous framework, covered by integument and lined by mucous membrane which is sometimes called the Schneiderian or Pituitary membrane. It is the organ of olfaction; a very important factor in normal respiration and phonation. The cavity of the nose is divided by the septum into two lateral halves, each half being furnished with three irregularly curved shelves, which project towards the septum and greatly increase its evaporating surface. These shelves of bone, covered in by mucous membrane and erectile tissue are called turbinated bodies, whose function is to properly regulate the temperature and moisture of the inspired air, as well as to filter it of foreign bodies, thus guarding the lungs against the approach of deleterious substances. The cavities of the nose are in communication directly with accessory cavities, viz., the sphenoidal and maxillary sinuses, the membrane lining which, being continuous with that of the nose. As the nerve supply of the internal surface of the nose is not generally concerned in the production of hemorrhage therefrom, it need not be here considered. Its arterial supply is derived from the ophthalmic, branches from which pass through the perforations in the cribriform plate, and are distributed to the roof, upper portion of the septum and walls of the fossæ, and the internal maxillary, the spheno-palatine branches of which supply the septum turbinates, the meatuses and lateral walls. The superior coronary, through the "artery of the septum" supplies the anterior portion of the septum. The very free anostomosis of these vessels forms a compact vascular network, and affords an explanation of the usually rather free hemorrhage which occurs during operations within the nasal cavities, being one of the most vascular areas of the body. Hemorrhage from the nose is either arterial or venous; the latter being perhaps the more frequent, and occurs as a result of traumatism, such as blows, picking the nose, surgical operations, the presence of foreign bodies, tumors, polypi, etc., and occasionally as a result of injury involving the base of the brain. From local diseases, ulcerations, inflammations, etc., and as a result of various systemic or general diseases, which by interfering with the general circulation, cause local congestion, increased vascular tension, impaired vitality, diminishing the resistance of the walls of the vessels supplying the part, or which so vitiate the condition of the system, as to reduce to the minimum its general resistance and induce ulceration or destruction of both the bony and soft parts; such as fevers, scurvy, purpura, diphtheria, malaria, anemia, the exanthemata, scrofula, syphilis, tuberculosis, diseases of the heart, lungs, kidneys, liver, etc. The diagnosis of nasal hemorrhage, if we exclude that coming from accessory cavities, and that which may be regurgitated into it, should not be difficult with our present means of exploring its cavities, since with even a moderate degree of skill and care it is a comparatively easy matter to actually explore the various portions of the nasal cavities and locate the area from whence the bleeding proceeds. Within the past few years our knowledge of the anatomical and physiological structure and function of this important organ has so increased that the merest tyro must possess a working knowledge of its diseases. Given then a nasal hemorrhage, we thoroughly explore the entire intra-nasal cavity, by means of a face mirror to reflect the light, with a properly constructed nasal speculum to enlarge the cavity, and a probe or cotton carrier, with which to cleanse the mucous surface of blood and debris, the area from whence the blood is flowing is seen. Should there be any difficulty in locating the bleeding, the entire mucous surface should be gone over carefully and deliberately until the object is accomplished, and this is the one important and necessary procedure. Find the bleeding area, locate it positively, and you are to all intents and purposes master of the situation. Before the use of the face mirror, which may be said to have revolutionized both knowledge and procedure in diseases of the intranasal cavities, the diagnosis of epistaxis was neither easy nor positive, and the hapless physician was often at his "wits end" to combat a flow of blood, which today we consider but a trivial matter.

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* Read before the Franklin County Medical Society, November 11, 1902.

By thorough inspection, it may be at once determined whether the bleeding comes from the nose, pharynx, or lungs, or even from the accessory cavities. After the site of the hemorrhage is determined, we then proceed with the means at our command for its suppression. The prognosis is usually (the word *usually* is used advisedly) favorable. It is well known that there is nothing which will make a more profound impression upon the patient, as well as his friends, than a persistent hemorrhage, no matter from whence it comes. It suggests possible dissolution and is contemplated with extreme alarm.

However, hemorrhage from the nose, per se, is very rarely fatal, yet cases have occurred and do occur, more especially those due to destruction of a vessel or vessels as the result of tubercular disease. It may, when not fatal, if protracted, so exsanguinate the patient, and depress the system as to render any existing or intercurrent disease of the greatest gravity. Thus, a case occurring in the practice of the writer some years ago, became so debilitated by an excessive hemorrhage of the nose, following a prolonged attack of malaria, that an intercurrent double pneumonitis proved fatal in less than ten days subsequent to the complete suppression of the hemorrhage. How much the meddlesome interference of misguided, though well-meaning friends contributed to the unfortunate termination is impossible to determine.

Children and youth prior to the age of puberty seem most generally to be the subjects of nasal hemorrhage, and males oftener than females. Post operative hemorrhage, while sometimes severe, usually subsides, either spontaneously after a few hours, or, if of unusual severity, it is generally controlled by carefully cleansing the cavity and the site of the bleeding, gently packed with a pledget of absorbent cotton, saturated with a 4 per cent. solution of cocaine with adrenalin, or the hydrogen dioxide. The former depletes while the latter facilitates the formation of clot. Often, indeed, the free entrance of a current of air into the nose is sufficient to control the bleeding. The writer is not aware of a fatal case of hemorrhage due to intranasal operation. Yet such is quite within the bounds of possibility. Nor has even an alarming hemorrhage due to operation upon the intra-nasal structures occurred up to the present in his practice.

TREATMENT: From what has already been said, it naturally follows, that the treatment of a hemorrhage from the nose may be embraced under two heads; first, that of the application of means by which the bleeding vessels may be occluded, and secondly, by mechanical pressure. Of the first class, when the case has assumed the dignity of hemorrhage, by which is meant to disregard the slight cases, both accidental and operative, perhaps the most efficient means at our disposal is the galvanocautery. When the bleeding vessel is discovered the area should be thoroughly anesthetized by the local application of a 4 per cent. solution of cocaine by the introduction of a pledget of absorbent cotton saturated with it, and left insitu for a few minutes, and after its removal the point of an electrode at cherry-red heat applied to the offending point. This is usually sufficient to stop the flow of blood. Yet it may become necessary to repeat the procedure, which may be done whenever necessary. Usually, after the application of the cautery point, no plugging is required. In the absence of the cautery the chromic acid or silver nitrate may be used in the same manner, always remembering that these chemical cauterizations are more painful than the galvano cauterization, and hence thorough local anesthesia must always precede it. When neither variety of cautery is available, it becomes necessary to pack the nasal cavity with either absorbent cotton or antiseptic gauze. The latter being always preferable, because of its easier removal. Perhaps the best method of packing the nasal cavity with gauze is to use a long, narrow strip, say one inch in width, and with a suitable probe, insert it from before backwards as far as the choânæ, being careful to fill up the fosæ, until the cavity is thoroughly filled. Of course this is not pleasant to the patient, but is infinitely more to be desired than the flow of blood. When properly done the bleeding usually ceases. The tampon should be removed at the farthest in 24 hours, when, if necessary, it should be repeated.

The physician usually finds his patient at his first visit recumbent, with his head hanging over the edge of the cot or bed. He should immediately place him in an upright position, which of itself will often cause a cessation of the bleeding. The indiscriminate injection of astringents into the nose of such substances as solution of salt, iron, tannin, matieo, etc., is not to be tolerated. It is the former empyrical and unscientific method of fighting an enemy in the dark. Should the bleeding come from the pharynx, and it is impossible to locate the faulty vessels, the vault should be filled with a properly constructed plug of gauze, by means of the soft catheter threaded with a string, to which, after its introduction through the nose and thus down behind the uvula, the gauze pledget may be attached and then drawn up into position, carefully placed in proper position by the aid of the finger, and retained in that position by tying the ends of thread over the upper lip. The old Bellocq's canula is hardly as grateful an instrument for this procedure as the soft catheter. Many of the drugs and procedures formerly in vogue for the suppression of nasal hemorrhage, have not been considered, because in the experience of the writer they have not been found necessary. He has only thought best to consider those which have been found available in his own hands during a limited practice extending over a period of years.

In conclusion he desires to emphasize the necessity in all cases of nasal hemorrhage of a thorough inspection of the intranasal cavities, and a positive location of the bleeding area, and to insist that only those remedies be used which have the undoubted influence of facilitating the coagulation of blood in the bleeding vessels. Depraved conditions of the system, favoring hemorrhage, should receive appropriate treatment, and the general system placed in the best condition possible to enable it to withstand the effects of serious hemorrhage.

62 East Broad Street.

Dr. H. A. Rodebaugh attended the thirty-second annual meeting of the American Association for the Study and Cure of Inebriety at Boston, December 18th, and read a paper on the subject of "The Value of Surgery in Certain Cases of Inebriety and Drug Addictions." Other papers were read by Dr. J. H. Kellogg of Battle Creek, Mich.; Dr. A. E. Etearne of Indianapolis; Dr. T. D. Crothers of Hartford; Dr. L. D. Mason of New York; Dr. Elliott and Dr. Macey of Boston. Over three hundred members were present. Dr. L. D. Mason was elected President and Dr. T. D. Crothers Secretary. Dr. Rodebaugh, as a member of the Executive Committee, is making an effort to have the next annual meeting in Columbus.

SOME APPLICATIONS OF THE PRINCIPLES OF INFECTION AND IMMUNITY.*

BY GEORGE F. ZINNINGER, M. D., CANTON, OHIO.

(Continued from December issue.)

PNEUMONIA: Theoretically we can practice protective inoculation against pneumonia, but this is of no practical bearing, owing to the incidence of the disease.

Besides these examples in human pathology, we have several examples of protective inoculation in comparative medicine equally interesting, viz: Anthrax, swine plague, Rauschbrandt and cattle plague, or rinderpest. For want of time we must discuss these by mere mention only, to say that in Koch's work upon the latter disease in South Africa he found that animals could be immunized by the use of bile from diseased animals, which probably attenuates the virus whatever that may be, or it may contain *anti-bodies* produced or excreted by the liver, hence it is not known whether it is an active or a passive immunization.

DIPHTHERIA AND TETANUS: In the protective inoculations of diphtheria and tetanus, typical examples of germs producing an extra cellular or soluble poison, we make use of the passive method, that of inoculating 100 or more units of an antitoxine. In diphtheria, to secure the antitoxine, the horse is actively immunized and used chiefly on account of the great amount of serum he is capable of furnishing. He is successively inoculated with increasing doses of cultural filtrate (living or dead bacilli also could be used). By this method an almost incredulous immunity can be reached.

The application of the healing serum of diphtheria both as a protective inoculation as well as a therapeutic agent in disease, rests upon the most convincing experimental basis and clinically the evidence has been overwhelming.

What has been said as to the experimental in diphtheria is equally true of tetanus. In fact, the evidence, if not more convincing of its efficacy, is at least more striking. As a preventive measure its action is decisive, but as a curative agent the serum has been a great disappointment. This, no doubt, finds a sufficient and rational explanation, not in its inefficacy, but in the fact that we are unable to diagnose the disease in its early stages, and after the characteristic symptoms have made their appearance the toxines have already destroyed the ganglionic nerve cells by entering into a firm union with them, hence beyond the reach of the anti-toxine. This is in keeping with Ehrlich's "side chain theory of heptaphors." Clinical experience seems to show that in the less virulent or fulminant types it has pronounced value, but of this it is hard to judge, because the method is the same in the treated as in the untreated disease. In the treatment it is reinforcing nature's cure.

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*Read before the Union Medical Society of Northeastern Ohio November 11th, 1902.

The toxic principle in snake venom is some proteid body allied to the ricin and abrin of vegetable poisons and to the toxines of bacteria. By their use in the usual way active immunization can be done as in both the former. The serum from the immunized animal can be used both in passive protective inoculation and as a healing serum. The problem was worked out by Calmette in the Pasteur Institute. The experimental basis for the employment of antivenene is most sound and its use most gratifying. As a healing serum it must be used within a few hours after the inception of the bite, as the poison acts most rapidly. In India huts of refuge are established in badly infested districts, where people bitten can run to receive the injections. Tetanus, diphtheria and antivenene are the only well-established protective and healing sera we possess in human medicine.

What has hitherto been said in this paper relative to those diseases caused by germs which produce no soluble toxine relates to *active protective immunization,* a vaccination against the disease. Now let us turn our attention to their use as agents of passive immunization and as healing sera. If it were possible for us to know the day we were to receive a given specific infection, such as pneumonia, streptococcic infection, etc., a few doses of serum would no doubt spare us, but such not being the case the question practically resolves itself into their use as curative agents. Again, the protective period following passive immunization being so much shorter as compared with the more lasting of active, renders the latter more practical. As has been stated already before in these papers, and as this is so fundamental, it will bear repetition that the action of the sera of which anti-streptococcic,-typhoid,-plague,-cholera and tubercle are types. Sera from those bacteria which produce, so far as we know, no soluble poison, are not antitoxic, having no effect upon the toxines already formed in the system in case of disease, but bactericidal acting directly upon the bacteria causing their disintegration and complete solution, to which the term bacteriolysis or lysogentic action has been applied, and to this really marvelous property we have no analogy in the whole domain of chemicals, antiseptics or disinfectants. Further, that the serum acts through the intervention of two substances can be shown by the following scheme:

Immunize a guinea pig, withdraw blood and secure serum, compare results of an animal receiving several times the fatal dose of germs alone and one receiving same dose of bacteria and serum. The latter will withstand about five to eight times the fatal dose. If you heat the serum to 55 degrees it loses entirely its protective power, but if you add a few drops of blood from any source, either from same or different species of animal, you restore fully its action, making it as potent as before. Thus you see we have unmistakably to do with two substances, one produced by our process of immunization, a stable body not destroyed by heating to 55 or 60 degrees, the immune body, the "amboceptor" of Ehrlich and one an unstable body normally present acting like a ferment, destroyed by heating to 55 degrees. This is believed to be the "alexin" of Buchner. The former we can no doubt produce in any amount, but as Wasserman says, the great problem is the production of the second, and if we can succeed in doing this we no doubt shall have an equally potent therapeutic agent as we now possess in the antitoxic sera.

Now let us consider briefly how far these several sera have been successful when applied as therapeutic agents.

First, as to lobar pneumonia: Acute lobar pneumonia, a distinct anatomical and clinical entity, is always caused by the micrococcus lanceolatus of Fraenkel-Weichselbaum. The alleged cases of pneumonia caused by the pneumo-baccillus of Friedlander and the streptococcus are fusions of broncho-pneumonic areas (Welch).

In pneumonia we have every evidence that the toxemia results from the death and disintegration of the micrococcus and that it does not produce a soluble toxine, the pneumo-toxin, as claimed by the Klemperers of Berlin, a statement cited in so many text-books.

Welch has shown several years ago by his capsule stain the enormous number of empty capsules showing the rapid disintegration of the germs. His early work also showed to his astonishment that it took 10 to 15 C.C. of fresh 24-hour cultural filtrate injected directly into the ear vein of a rabbit to produce death, practically the same dose as of pure bouillon. I beg to quote from one of his lectures (1901) in substance the following: "The real action of the immunizing serum of pneumonia has not, to my knowledge, after rather careful scrutiny of the literature, ever been worked out, and I intend to shortly put a student to work it out upon the line of Pfeiffer's phenomenon. It has been shown that you can protect rabbits, guinea pigs and goats against five to six times the fatal dose, provided you *early* employ the serum. If, however, you wait until the toxines produce fever very little good follows their use. Thus it will be seen that the experimental basis for its application in the treatment of pneumonia is not good, and careful clinical experience has also rendered its testimony accordingly the same.

"Another important consideration as yet entirely *sub judice* is whether we have not got to deal with different varieties or strains of micrococci, at least biologically, as we know we have of streptecocci. Some hold that the specificity of sera is the best and most positive proof we possess to support such a doctrine.

"For example, Washbourn, of London, has found that out of six varieties of micrococci they had but one against which the serum was effective and against the other five it had no effect whatever. The serum made by Pane, of Italy, has been best studied.

"The practical application of the serum treatment of pneumonia is hard to judge. Pneumonia is apparently not any more but just as fatal today as in the days of venesection. The same favorable results from a small group of cases is the same as that applying to so many published results due to other innovations of treatment. The weight of clinical experience is against its value, and as above shown, the experimental the same. It probably, however, fulfills the Hippocratic requirement that it does no harm."

Pneumonia is fast pushing to the front as the most fatal of all diseases, and in many localities, for example Chicago, it has passed the tubercle bacillus, which from the earliest records has always held first place in that it now shows a lead, according to the health reports, of about 9 per cent.

Now, secondly, as to the streptococcus. This germ is responsible for nearly all fatal cases of puerperal fever, lymphangitis, phlegmon, erysipelas, acute ulcerative endocarditis and appendicitis.

The latter is believed by many to be caused by the colon bacillus almost exclusively, but as Welch says: "I am afraid that the small colonies of streptococcus are overlooked in the cultural plates being overgrown by the more luxuriant overgrowth of the latter, which, of course, is invariably present." Besides, at the time of death the streptococci may have already disappeared from the field of action and the colon bacillus taken possession as secondary invaders.

The streptococcus, like the micrococcus lanceolatus, produces no soluble poison. It can be enormously enhanced in virulence by Marmoreck's method of passage and from these in turn animals can be immunized against this particular variety of streptoccocus, but not seemingly against any other strain, so what assurance have we in a given case of the specificity of our serum.

When we reflect upon the enormous difference noted in the virulence of different cultures of streptococci from that which produces a skin pustule of no moment whatever to that which from a postmortem needle prick produces a septicemia of such a fulminant type as to produce death within 36 to 48 hours, we can see at least to what a great extent biologically streptococci differ.

In the use of the serum here again individual reports are favorable, but on the whole statistics gathered from many sources speak no favorable report. The statistics of the American Gynecological Association, collected by Williams, of Baltimore, show that by its use the mortality of puerperal fever has not been reduced.

In the production of anti-plague serum the dead bacilli and the horse are used, living germs are dangerous to work with. The sera now upon the market are the Roux and Yersin, the latter seemingly the more reliable. The report of the success of the serum is commented upon enthusiastically by the German Commission. Large doses were used in the Ann Arbor case, as reported by Dock before the Association of American Physicians, and he is sure of its salutary effect, for their case recovered, it being of plague pneumonia, which is always fatal.

In the preparation of typhoid serum both dead and living cultures are used. In practice so far the serum has proved of no value whatever.

There yet remain dysentery, malta fever and tuberculosis to engage our attention.

The type of dysentery believed to be caused by the ameba coli, first discovered by Lambl in 1859, but first associated with ulceration of the bowel and dysentery by Lösch in 1875, was first accurately described by Kartulis in Egypt. It was first accurately studied in this country by Councilman, Laffleur, and Osler.

The belief that this protozon is the cause of a type of dysentery is very much doubted by physicians in the tropics, who assert that it is found in the stools of so many healthy individuals, as can be demonstrated by giving them a dose of Carlsbad salts. This certainly is not the case in Baltimore, where the disease is quite frequently met with and presents a distinct clinical as well anatomo-pathological type. Dock, Strong and others have not been able to confirm Schuberg's statement that ameba can be demonstrated in the stools of 50 per cent. of cases of healthy individuals following the administration of Carlsbad salts, being found in a much smaller percentage of cases.

Dr. Strong, an army surgeon in Manila, has partially confirmed the findings of the tropical physicians, however. He claims to be able to distinguish two species, one which is not pathogenetic and larger, and which, he thinks, should be called the ameba coli, and one smaller and constantly found in cases of dysentery, for which he proposes the name "ameba dysenteriæ," as used by Councilman and Laffleur.

Besides the amebic type, which is a slow, chronic type of the disease, we have a distinct, acute, often fatal type, accompanied by diphtheritic exudate in the bowel and due to the bacillus discovered by the Japanese, Shiga and bearing his name. It is this type which has so prevailed among our troops at Manila and studied by Flexner and Barker, who were sent to Manila (1901) to study the prevailing diseases among our soldiers. The disease, no doubt, is more widespread than at present believed, for Flexner met with it in an indigeneous case in Philadelphia in the summer of 1901, isolating the bacillus, which was present in almost pure cultures. Kruse about this same time, in a small almshouse in Germany, in a local epidemic, has probably met with the same.

Kruse in his second publication, after exchanging cultures with Flexner, made some concessions which brought it in line with Flexner. The same may be said of the organism met with by Celli in Italy. Flexner has reproduced the disease in cats. He also has prepared a vaccine and a curative serum, the former probably being the more efficient.

The recent work of Duvol and Bassett at the Mt. Wilson Sanitarium for Sick Children, in isolating this organism from the stools of 42 cases of the summer diarrheas of children, is proof of the widespread distribution of this organism. Their work seems to admit of no doubt, for they could demonstrate agglutination in very high dilutions of (*a*) blood serum obtained from the sick child furnishing the cultures; (*b*) blood serum obtained from other sick children; (*c*) blood serum obtained from adult cases of acute dysentery, (*d*) and by use of anti-dysenteric immune serum.

From the fact that the organism was found so constantly in the stools and postmortem in the intestinal mucosa of sick children, and its absence in the stools of 25 healthy children examined seems, in connection with the above noted facts, to admit further of no other interpretation than that the organism in question is the pathogenetic agent in the production of the disease.

Malta fever is due to the micrococcus melitensis of Bruce. Some later observers (Muir and Richtie) say it is a short bacillus and motile. It was formerly believed to be confined to the Mediterranean coast, but has recently been found in India, China and Puerto Rico. Musser's case recently met with in Philadelphia came from Puerto Rico. The disease, with its relapses, often lasts a whole year.

Dr. Welch suggests that some of the erratic forms of our southern fevers may really be cases of Malta fever. It is a very unsafe laboratory organism. Cases of inoculation have followed needle prick, and Dr. Strong, of Manila, by a drop of bouillon culture splashing into the conjunctival sac of his eye suffered a two-months' attack. The agglumative test is positively diagnostic.

The tuberculin of Koch, given to the world in 1890, was the earliest therapeutic serum. It belongs to the same general class as the ones we have discussed. It was at once enthusiastically accepted and tried, "weighed in the balances and found wanting."

Virchow at once showed that following its use there was inflammatory action set up around the tubercles and increased danger of the dissemination of the bacilli.

In 1897 Koch tried to immunize against the tubercle bacilli by using intracellular toxines. The method consisted in drying pure cultures of tubercle bacilli *in vacuo,* rub them up in agate mortar with pestle, treating them with distilled water and centrifulgalizing. The sediment is again dried and similarly treated and this process was repeated until no sediment remained. All the fluid was then combined and this was his tuberculin R. It differs from the old tuberculin in that it has in it substances not soluble in glycerine—some intracellular toxines. As supplied commercially every c. c. represents 10 m. g. of dried tubercle bacilli.

The old tuberculin is still employed to some extent therapeutically by Trudeau and Von Ruck in selected cases, and believed to be of value, yet undoubted clinical evidence does not exist and its value is problematical. As a diagnostic agent, however, it is, in our opinion, of great value, not alone in veterinary medicine, where it is so extensively employed in cattle with unvarying results. In those cases of failure which are occasionally reported we fear that the person who made the autopsy merely failed to find the tuberculous focus, which surely existed in some unlooked for part of the carcas.

From purely theoretical considerations, based upon specific bacterial reactions, we should expect the reaction to be positive in tuberculous cases only. It has been used in Dr. Halstead's wards at the Johns Hopkins Hospital very extensively in the diagnosis of mostly bone and glandular lesions of doubtful nature. In an exhaustive resume of the subject in a paper read by Dr. Tinker before the Johns Hopkins Medical Society, the whole subject is gone over and summarized. Positive results have followed, as I recollect, in about 90 per cent. or more of the cases, as confirmed either by subsequent history or microscopical examination following operation or subsequent autopsy. Dr. Osler considers it of the greatest diagnostic value. Trudeau, one of our country's pioneers in the study of tuberculosis, also adds his testimony of its positive value. Moeller, director of a consumptive sanitarium in the Beltzig pine forest in Northern Germany, told me when visiting his institution, that he places implicit faith in it and employs it in all doubtful cases.

Another practical application of really great value resulting from the studies of the problems of infection immunity, is the diagnostic test afforded, resulting from the property many motile bacteria have of losing their motility and clumping when treated by the blood serum of the host properly diluted, or the serum from any source if the man or animal has been immunized against the specific disease in question, to which the term agglutination has been applied.

This test has a double value, viz: On the one hand to positively identify the disease in case the bacterium is known, and on the other hand to identify the organism in question when the nature of the infection is definitely known. In case an organism is isolated from a given diseased individual, and if the serum of the host agglutinates it when properly diluted, it is considered as proved that it is the pathogenetic agent in question. Many contend that in this biological reaction we possess the most positive criterion available up to the present for the identification of a given organism.

As to blood cultures as a method of specific diagnosis mere mention only can be made in this connection. Bacteria have occasionally been isolated from the blood during life during the past fifteen years in typhoid fever, pneumonia and pyogenetic infections. Their occasional demonstration only, together with other considerations, led to the belief that their presence in the blood stream during life in these diseases was in a manner accidental and was not considered a factor in their pathology.

This belief was apparently supported by Wissokowitsch's great experimental work in 1885, showing the fate of bacteria when introduced directly into the blood stream. During the past few years, however, the work of Richardson, Gwyn, Cole, Schottmüller and others has shown that in at least a great majority of these cases a true bacteræmia exists and have utilized it as a means of diagnosis. Dr. Cole, of Baltimore, in Osler's wards, uses the following technique:

He cleanses the skin over forearm and bend of elbow with tinct. green soap and water, following by alcohol, ether, bichloride and a hot compress of the latter applied from one-half to one hour, and again washed off with sterile water. By using a sterile syringe and touching the needle only by sterile forceps, the arm being tightly grasped below the shoulders by the nurse, the needle is quickly plunged into one of the veins. By using a small needle and entering the vein with one thrust, no more pain results than in giving a hypodermic injection. Eight to 10 c. c. of blood are aspirated, the needle removed and about 1 c. c. of blood inoculated into the culture medium, using a series of 4 to 6 Erlenmeyer flasks containing, in case of typhoid fever, 150 c. c of bouillon and in pneumonia same amount of litmus milk and incubated for 18 to 24 hours. If growth appears sub-cultures are made into the various media, using both tube and plating methods for positive identification. The special feature in Cole's work consists in using enough (1 c. c.) of blood on each separate inoculation to insure the presence of viable germs if present in any number, and especially that of using a great amount of culture medium, about 150 c. c., thus insuring a dilution of 1:150, thereby reducing to a minimum the danger of death of the bacteria as a result of the bactericidal action of the serum before they get a foothold in the culture media. Cole has found that in certain cases of typhoid cultures one and sometimes a second sub-culture transplantation must be made before the bacilli show much evidence of motility.

He believes that the few successes heretofore to grow the typhoid bacillus from the blood were due to insufficient dilution of the blood by culture media. Imperfect asepsis as to method of preparation must also be mentioned. Rigid asepsis is essential to success. Schottmüller has been plating his cultures directly, using solid media, which, if successful, has the advantage of being able to calculate the actual number of bacteria present in each c. c. of blood. Cole's first report on typhoid cultures showed positive results in 11 out of 15 cases, while Schottmüller, in a series of over 100 cases, reports about 80 per cent. as positive results. Cole's work in pneumonia, on the other hand, shows only positive findings in 9 out of 30 cases, all nine of which, however, proved fatal.

If further studies confirm these figures it speaks more for the utility of this method as a prognostic rather thon a diagnostic criterion.

In typhoid fever the bacillus has been isolated during the second day of illness and within 24 hours following a relapse. "The statement has been made that the Widal is most likely to be absent when there are many bacteria in the blood. It has been contended by some that there is an antagonism between a large number of bacilli circulating in the blood and the Widal reaction." (Welch.) If this be true, blood cultures will be especially serviceable in just those cases where this latter most valuable means of diagnosis fails.

In view of the demonstration of a true bacteremia in typhoid fever at so early a stage of the disease, what are we to offer as an apology for the alleged cherished facts of those who, by the administration of so-called intestinal antiseptics, abort typhoid fever, as well as in those cases in which the disease is a septicemia without any intestinal lesions whatever?

In what diseases have blood cultures during life been successfully employed as a means of diagnosis? In typhoid fever, pneumonia, pyogenetic cocci and more recently has been added by Cole a case of bacillus aërogenes capsulatis (Welch), and the gonococcus in a case of gonorrheal endocarditis by Harris and Johnston.

In summing up we can say that we possess in blood cultures a positive means of specific diagnosis, of value in that it often is the only measure we at present possess of diagnosing anomolous types of typhoid fever, pneumonia, pyogenetic infections and cases of acute endocarditis in which there is no murmur present, as is not infrequently the case, as has been insisted upon by Professor Osler.

HEMORRHAGE FROM RECTUM.*

BY SHERMAN LEACH, A. M., M. D.,

Professor of Surgery and Clinical Surgery, Ohio Medical University; Surgeon to Protestant Hospital, Columbus, Ohio.

Under the title "Hemorrhage from the Rectum" I shall include all bleeding which has its origin in the lower or last six or eight inches of the bowel, including the anal canal and the tissues surrounding that orifice. While it frequently occurs that we have an escape of a large quantity of blood from the rectum, yet it often has its origin high up in the colon, small intestine, or even in the stomach; therefore we must exclude that form of bleeding from that which originates in the rectum proper. In order to accomplish this we must make a careful diagnosis along differential lines. Idiopathic hemorrhage from the rectum or a hemorrhage occurring without a definite pathologic lesion is practically unknown.

In all cases of bleeding from the rectum, if a careful search be made, the lesion will be discovered and this lesion may be a simple proctitis, or ulceration, a benign or malignant neoplasm, traumatism produced by surgical operation, foreign bodies, prolapse or invagination, tubercular ulceration, fistulæ, etc. Thus it will be seen that hemorrhage from the rectum is a symptom of many conditions and should be so considered in its management. We no longer think of treating dropsy, jaundice, etc., as diseased conditions but direct our attention to the pathological lesion which produce them. Seldom does it occur in the hands of those who are constantly doing surgery that a case of hemorrhage from the rectum causes any alarm or uneasiness, from the fact that the means at our disposal for the control of such are both numerous and effective. The cases of bleeding that are most deceptive are the ones which lose a small quantity of blood daily or at each evacuation of the bowel, until all the signs and symptoms of anemia are well established, together with all the disturbances that such a condition produces.

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* **Read before the Franklin County Medical Society, November 11, 1902.**

Disordered nutrition, disturbances of the heart's action, cessation of menstruation, the anemic look, general nervous phenomena have all been observed by most of you. Placing to one side, for the time being, the diseases of the rectum that produce only slight, or occasional loss of blood let us consider the causes upon which depend the loss of a sufficient quantity of blood to be classed as a hemorrhage. The so-called concealed hemorrhage when the blood is retained in the rectal pouch until a pint or a quart or even two quarts of blood are poured out into this cavity are the ones which occasion alarm both on the part of the surgeon and patient. More frequently we meet the cases which lose from one-half to one ounce of blood at each evacuation of the bowels, the bleeding coming on immediately after the bowels act. Such hemorrhages are almost invariably due to one or the other forms of internal piles. The concealed hemorrhage generally results from the so-called capillary or bleeding pile, which is one composed of the veins and arteries and the capillaries which join them. This tumor is of small size, of a decided red color, with a granulated surface and covered by a very delicate mucous membrane, which bleeds on the slightest provocation; a little increased straining or a constipated stool is sufficient to produce a very free hemorrhage; the bleeding is usually arterial in character and comes per saltum. Often an examination of such a patient will reveal a stream of blood spouting from the surface of such a tumor, which will continue to bleed until either a clot forms in the mouth of the bleeding vessel or is controlled by artificial means. Seldom do we find an alarming hemorrhage coming from any other cause. There are, however, a few cases recorded where a fatal hemorrhage has occurred, the result of tubercular ulceration.

Ashby, in the *British Medical Journal*, 1880, reports a case of the sudden death of a child four years of age from a hemorrhage of the rectum, the child being a subject of general tuberculosis.

The large venous pile seldom bleeds sufficiently to be alarming; likewise cancer of the rectum seldom bleeds sufficiently to occasion uneasiness. The bleeding in such cases is usually mixed with pus and mucous, occurring independent of the bowel movement and resembling a dysenteric discharge. This bleeding is often referred to as the prune juice discharge of cancer; only by its persistence does such a loss of blood produce any ill effects upon the general health of the individual. Hemorrhage, the result of surgical operations upon this part, may be profuse, may occur at the time of the operation or come on several days later, due to the sloughing off of a ligature or the separation of the eschar produced by the use of the clamp and cautery, or following the division of a deep and extensive fistulous tract we may get a profuse hemorrhage, especially so if the division involves all the coats of the bowel high up; frequently the occasional operator stops with his work half completed on account of the profuse bleeding. Hemorrhage from any operation upon the rectum may prove at least very alarming, if not fatal, by carelessness or negligence on the part of the operator. Many cases are reported by various authors who pay special attention to diseases of the rectum, to show the seriousness of this condition. Personally, I can, by referring to a few cases that have come under my own care, as well as the cases reported by others, illustrate more thoroughly the importance and magnitude of this subject.

Case 1. Mr. A. B., of this city, carpenter by occupation, good family history, good physique, good habits, good surroundings had been losing blood at each evacuation of the bowel for the past ten or fifteen years. He could not give any definite knowledge as to the actual amount of blood lost each day, but stated that there was always some present each time the bowels moved, that the amount varied at different times, depending upon the condition of his bowels, being always more profuse when his bowels were constipated.

When I saw the gentleman he was in a very deplorable condition; he was almost exsanguinated; he had a distinct heart murmur and was very short of breath; he was very nervous, and suffered from many digestive disturbances; œdema of both legs was present and he passed very restless nights. On examination I found two or three internal piles that protruded when I directed him to strain down, the tumors bleeding freely on the slightest touch; there was no evidence of other disease present. His condition was so serious that I refused to operate until he was seen and examined by another physician. Dr. Kinsman was called in consultation and doubtless will remember the case. He advised an operation, provided it could be done without general surgical anesthesia. The patient was sent to the Protestant Hospital, and the following day, under local anesthesia, the tumors were ligated and the bleeding arrested. He made an excellent recovery, leaving the hospital in ten days. Four months later he came to my office, when I failed to recognize him, he had so changed in his general appearance. He had gained many pounds in weight, all his former symptoms had disappeared, his color was that of a robust, healthy man, he was working at his trade every day and considered himself perfectly well; he had seen no blood since the day of his operation.

Case 2. Mr. T. D., operated for piles by the method of carbolic acid injection by an advertising man. Ten days following his last injection, I was summoned in great haste to see the gentleman on account of a profuse hemorrhage he had just suffered. On arriving at his home I found the man pulseless, his body bathed in cold perspiration, cold extremities, not able to speak aloud. Upon inquiry I learned that he had experienced a desire to go to stool, when he passed at least two quarts of clotted blood; following this escape of blood he fell in a faint, and was carried into the house. I went prepared to tampon the rectum; after arranging things as quickly as possible, I placed my finger in the rectum, when there was another escape of blood, to the extent of a pint and a half; after clearing out the rectum of all clots and fluid blood I tamponed the rectum with strips of gauze, carrying the gauze up the bowel as far as possible. I systematically packed the rectal pouch until it was thoroughly distended, placing a large wedge-shaped compress over the anus, holding the same in place by a tightly-fitted T bandage. This tampon was left in place for five days when it was removed, the bowels encouraged to act by a dose of castor oil, the patient making a slow but complete recovery.

I wish to refer to one or two cases reported by Dr. Mathews. He was called by a physician to see a lady who was suffering from an alarming hemorrhage from the rectum. She gave no history of rectal disease, but stated that during that afternoon she felt a great desire to go to stool. She recognized that she was passing a large amount, she thought, of liquid action. In an attempt to rise she fainted, and it was revealed that she had passed nearly a chamber full of pure blood. The family physician was sent for and after his arrival another hemorrhage took place. He immediately summoned Dr. Mathews. The hemorrhage was so excessive and the patient in such danger of losing her life, that they had no time to search for any bleeding spot, especially as it was in the night; so they determined to tampon the rectum, after which no bleeding occurred. Mathews was satisfied that this case was caused by the sudden rupturing of an artery, perhaps in a so-called capillary pile, and that death would have ensued very soon but for the opportune use of the tampon.

Another case which Dr. Mathews cites is of a Doctor I., a man of apparently good health and strong, robust constitution, who noticed for several weeks that he was growing very weak and anemic. He consulted Mathews, who states that he had the complexion and general appearance of a man suffering from cancer. He says he could scarcely walk up his office steps, was dizzy, had no energy and had fainted several times. His bowels would move several times a day, a liquid evacuation, and he supposed that he was suffering from diarrhea. Mathews suggested that perhaps he was losing blood at stool. The patient stated that for some time he had had small hemorrhoids which protruded at stool, and that they occasionally bled, which was evident upon the paper he used as a detergent. An examination revealed a small jet of blood, easily seen when the sphincter muscle was opened. The same day the small growth was tied, in which was the bleeding vessel. No further bleeding occurred and he slowly but surely regained his former health.

Many cases might be cited to still further show and prove the importance of this subject; every general practitioner should bear in mind the possibility of his cases of anemia being produced by hemorrhage from this part. The line of treatment is so plainly indicated that but little need be said pertaining to this point. All patients suffering from loss of blood from the rectum should be subjected to a careful and painstaking examination. By the aid of a proctoscope or rectal speculum the lower six or eight inches of the bowel can be carefully scrutinized. If the bleeding comes from ulceration the same should receive appropriate treatment; if from some neoplasm, piles, etc., they should likewise be treated by prescribed rules. In all other cases of profuse hemorrhage, where the condition of the patient is such that an operation is contraindicated, or where valuable time would be lost, recourse should be had to the rectal tamponade. In this, as in all other procedures, the simplest way is usually the best; take long strips of gauze three inches wide, and several yards long; place the patient under the influence of an anesthetic if his condition will permit, dilate the sphincter muscle, clear out the rectum thoroughly and carry the strip of gauze up the bowel as far as it is possible, from this point down; thoroughly and systematically pack the rectal cavity; by tying one strip of gauze to the next you will have it in one single strip, which will facilitate its removal. As you approach the anus the gauze should be thoroughly pressed home and the end of the strip left protruding from the anus. Lastly, a large wedge-shape compress should be placed in the anal canal and the same held firmly in place by a T bandage.

Hemorrhage occurring in the anal canal or in the tissues surrounding that orifice can be perfectly controlled by the wedge-shaped compress alone, inasmuch as a separate set of blood vessels are involved in the bleeding; the veins supplying this part belong to the general or systemic venous system, while those supplying the rectal pouch belong to the portal system.

ATLAS AND EPITOME OF TRAUMATIC FRACTURES AND DISLOCATIONS. By Prof. Dr. H. Helfrich, Professor of Surgery at the Royal University, Greifswald, Prussia. Authorized translation from the German, edited by Joseph C. Bloodgood, M. D., Associate in Surgery Johns Hopkins University, Baltimore, Md. Fifth edition, revised and enlarged, with 216 colored illustrations on 64 lithographic plates, and 190 figures in the text. W. B. Saunders & Co. Philadelphia, Pa. 1902. Price, $3.00.

Fractures and dislocations cannot be properly taught nor understood without illustrations showing the visible external deformity, the X-ray shadow, the anatomic preparation, and the method of dressing. The Atlas of Fractures and Dislocations furnishes all these requirements. It is translated from the fifth edition and presented as one of Saunders' Medical Hand Atlases. It is a valuable book for students and practitioners. **

HEMORRHAGES FROM THE LUNGS.

(IN ABSTRACT.)

BY CHARLES W. M'GAVRAN, A. B., M. D.,

Instructor of Physical Diagnosis, Ohio Medical University, Columbus, Ohio.

In hemoptysis, which is an expectoration of blood, the source of the bleeding may be from the vessels in the mucous membrane of the bronchi, larynx or trachea, or from eroded vessels in pulmonary cavities or their walls.

It may be arterial or venous, and may be by rhexis or by diapedesis.

Hemoptysis is very often due to congestion, either active, as in croupous pneumonia, pulmonary tuberculosis and fibrinous bronchitis, or passive, as in organic cardiac disease.

The pressure of intrathoracic tumors will cause passive congestion.

Pulmonary tuberculosis is the most common cause of pulmonary hemorrhage. It may occur early in the disease, on account of the collateral congestion due to the sharply limited tuberculous areas or later on account of an eroded vessel when softening and excavation has taken place.

Hemorrhage from the lungs may be due to affections of the blood or blood vessels, i. e., hemophilia, purpura, scurvy and anemia. Also may be due to gouty endoteritis, cancer, gangrene, or traumatism. It may appear without any known cause, as in the female during menstruation, or the menopause.

SYMPTOMS OF ATTACK. Saline, sweetish taste, sensation as if a warm fluid were trickling behind sternum; cough attended by large moist bronchial and tracheal rales, and with each paroxysm blood is expectorated, the amount varying from a few drams to several pounds. The blood is frothy, generally fluid, arterial in color, but it may be venous and in clots.

Hemoptysis is generally recurrent and may occur at intervals varying from a few hours to several years.

TREATMENT. First ascertain cause. If due to active congestion, quietness in dorsal decubitis is imperative and in most instances will suffice. If, however, the hemorrhage is excessive the power of the heart's contraction must be decreased, absolute quietness, patient should not be allowed to speak above a whisper, or to change his position.

Diet should be light, nutritious and non-stimulating.

Ice bag to precordia; aconite under careful observation when pulse is strong and full.

Salines in full doses to deplete pulmonary capillaries. Venesection may be employed with good results.

Dry cupping over chest has proven a valuable means of depleting pulmonary capillaries and is now employed extensively.

Calcium chloride in 30 gr. doses 4 i. d. to increase the coagulability of the blood. Morphine hypodermatically checks the cough and quiets the patient.

If the hemorrhage be due to ruptured aneurism or erosion of large vessel in a tubercular cavity and the blood is expelled by mouthfulls, morphine is contraindicated, as by checking the cough bronchial inundation is favored.

When the hemoptysis is due to passive congestion, as in organic heart disease the heart should be stimulated and strengthened by digitalis.

A monograph on the Mattison Method of Treatment of Morphinism is on our desk. It is written by J. B. Mattison, M. D., Medical Director, Brooklyn Home for Narcotic Inebriates. Published by E. B. Treat & Co., New York, N. Y. 1902. It contains many valuable suggestions in the treatment of morphinism. **

THE PUBLIC HEALTH AND THE DOCTOR is the title of a small book published by Dr. B. E. Hadra, Dallas, Texas. It is intended for circulation among the laity as well as physicians. Its purpose is to educate the masses along the line of medical affairs in their relation to physicians and patients. The author thinks that good fellowship and confidence between client and physician will be enhanced by a careful perusal of his book. **

Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting December 15, 1902.

DR. J. C. LAWRENCE, President. DR. J. L. GORDON, Secretary.

Dr. C. S. Hamilton read a paper on the

"RECURRENCE OF SYMPTOMS AFTER OPERATION ON THE GALL BLADDER."

Drs. Isabel A. Bradley, E. E. Carleton, W. H. Pritchard and D. R. Holmes were elected to membership.

The following officers were elected for the ensuing year: President, Francis W. Blake, M. D.; Vice-President, H. Hendrixson, M. D.; Secretary, John D. Dunham, M. D.; Treasurer, W. C. Davis, M. D.; Board of Censors, Dr. H. M. Platter, Dr. F. F. Lawrence, Dr. J. A. Frame, Dr. M. T. Dixon, Dr. W. K. Rogers, re-elected

FRANKLIN COUNTY MEDICAL SOCIETY.

Regular Meeting, November 25, 1902.

OFFICIAL REPORT, MISS MAY BENNETT.

D. N. KINSMAN, President. C. S. MEANS, Secretary.

"PELVIC INFLAMMATION"

was the subject of a talk by Dr. C. A. Howell. Dr. McGavran read a paper (page 29), on

"HEMORRHAGE FROM THE LUNGS."

DISCUSSION.

Dr. W. J. Means: The paper of Dr. McGavran appeals to every practitioner. Every physician has frequently met with cases of hemorrhage from the lungs and must have felt his impotency in the presence of such hemorrhages. I am pleased to note that the Doctor did not place much reliance on many of the old-time remedies used in such cases. I refer to the use of ergot, digitalis, common salt and similar remedies.

I believe that the greatest good follows absolute rest, both to mind and body. This can be obtained by giving the patient assurance that no danger is present, by advising against efforts of coughing and expectoration, and the administration of morphine or opium in some form. A favorite prescription of mine in hemorrhage from the bowels or lungs is aromatic sulphuric acid and deodorized tincture of opium. I am unable to give a good reason for the administration of sulphuric acid, but I do know, from clinical experience, that good results follow the administration of these remedies in combination.

Dr. Kinsman: I will back four shawl-straps against any other remedy under heaven, for the treatment of hemorrhage from the lungs from whatever cause, if you want a speedy effect. Sulphuric acid, I believe, is valuable along the same line as the chloride of lime. It will increase the plasticity of the blood if it does anything. Gelatin is used in increasing the coagulability of the blood. Opium dissipates local congestions and calms the patient. Mental shock is severe in these cases. I am quite sure it is not the quantity of the blood lost that causes this shock, but the knowledge that something is wrong flashes upon the man with brutal suddenness, gives these patients a fear, a shock that they don't receive from any other form of bleeding. Sancho Panza said that blood is quite a peculiar juice. When a person is spitting blood from the lungs he recognizes a symptom of something from which there is no escape. There is a kind of helpless, hopeless, forlorn prospect that patients have in the presence of no other hemorrhage. A dose of ipecac acts very promptly in reducing hemorrhage. I think it quite as effective as aconite and much safer. I have applied, I believe with advantage, a pan of ice and salt, interposing a layer of flannel between the bottom of the pan and the chest, and setting that upon the chest, in cases in which the hemorrhage apparently was going to run away with the patient's life.

The source of this hemorrhage is not always very clear. Hemorrhage that comes from the large vessels is beyond medicine often. Violent hemorhages lead to death in fibroid disease of the lungs. The contraction has torn open the blood vessels. One is helpless in the face of such hemorrhages as that. There is a prognostic hemorrhage that comes at the close of consumption. It occurs 48 or 72 hours before death; the expectoration becomes a light pink, and will continue from that time to the end, a prognostic of a speedy death. It is never profuse, never large, simply a tinting of the sputum.

Dr. Coombs: The general practitioner meets with hemorrhages from anemia quite frequently in young women, and hemorrhage from the lungs in first pregnancies. They seem to disappear upon putting the patient at rest. In the hemorrhages of anemia rest treatment has never been very effective with me. In hemorrhages of old people rest, aconite and a cold compress has done very good work. I have never gotten any benefit whatever by chloride of sodium.

Dr. Reynolds: I have never seen a case of pulmonary hemorrhage where such a large amount of blood has been lost as has been stated. We may have hemorrhage from congestion of the bronchi, or from rupture of a vessel surrounding a cavity which has formed in the lung tissue, or it may be due to any cause which will induce pulmonary congestion.

Dr. McGavran: I have never had a case on which to try Dr. Kinsman's method of checking hemoptysis. I can very readily see how this method would be efficacious. Calcium chloride in 30 gr. doses 4 i. d. will at times increase the coagulability of the blood. I have seen it used in one case where it seemed to have some effect; other instances where it was used without any effect. This summer I saw a case of hemoptysis in incipient tuberculosis without forewarning. I was in the lecture-room listening to the professor of pathology, a man 26 years old, who never had any idea of having tuberculosis, when he began to cough and had a hemorrhage of about a pound. He went to the hospital; tubercular bacilli were found in great number in his sputum.

Dr. Leach read a paper (page 23), on

"HEMORRHAGE FROM THE RECTUM.'

Dr. Taylor: Dr. Leach's paper is especially valuable as it suggests the necessity of our looking into these hemorrhages lest they might produce, as has been cited, serious disturbances, nutritive changes, nervous manifestations and various other phenomena. I have never given the mere fact of little bleedings the consideration that I believe those cases warrant. We have patients who consult us because they have noticeable little discharges visible at stool, and yet we are prone to dismiss these cases without much consideration. We usually think that they don't amount to much, and in fact we are inclined to believe that a thing must be very serious—amount to quite a hemorrhage before we think much of it; so that I say the paper is very valuable from the suggestive standpoint.

Now I recall a patient who complained of quite a profuse discharge of blood at the time of stool. I expected to find either external or internal hemorrhoids when I made the examination, but as has been cited in the paper of Dr. Leech, we may have hemorrhages coming from higher portions of the bowels. By making a very careful examination I did not find any cause of hemorrhage as far up as I was capable of examining—six or seven inches. There was nothing to indicate hemorrhage from this locality. I found, however, on going into the history of the case, that the patient some three years before had suffered a prolonged attack of typhoid fever, and had suffered as a result of that from chronic diarrhea, which had continued troublesome over a period of probably two years. I believe that the hemorrhage in this girl's case comes from the small intestine, so that (as has been suggested) we must not always expect to find the hemorrhage due to the rectum. I have not been able to benefit this patient at all, and it might be interesting to hear from Dr. Leech relative to the treatment of such a case.

Dr. Rodebaugh (by invitation): Dr. Leach speaks of the control of hemorrhage by the tampon. His method of using it, while effective, is sometimes impossible, especially when one has not the necessary assistance, light, etc. Several years ago in a case of that kind it was my good fortune to have suggested to me by an old soldier a plan of controlling hemorrhage with raw silk. It consists in taking a piece of silk, Chinese silk, about fifteen inches square, and placing the center of it over the rectum, and inserting that with any kind of blunt instrument to a point above the supposed hemorrhage, and then packing the silk with gauze or any material which may be at hand, thus ballooning it, and controlling the hemorrhage in that way, and when the packing is removed the silk collapses and is easily separated. There is less danger of secondary hemorrhage than if gauze is used.

Dr. W. J. Means: The method of tamponing the rectum for hemorrhage suggested by Dr. Leach is a good one, but has some disadvantages. I have used the method referred to by Dr. Rodebaugh, but used a tamponade made similar to that suggested by Mikulicz for tamponading the abdomen. It is in my experience preferable to the method suggested in the paper. I have never used silk, but can readily understand its advantage as a covering for the gauze.

Relative to the case spoken of by Dr. Taylor, there is some doubt in my mind whether the hemorrhage comes from the small or large intestine. He did not state the character of the blood. If it is dark and intimately mixed with fecal matter, I presume it must be from the small intestine. If, however, the blood is normal in character it must come from the lower bowel or the rectum.

Dr. Leach: In Dr. Taylor's case, where the hemorrhage is profuse, the treatment indicated is very much like that directed to the control of hemorrhage from the lungs. If, after a thorough exploration of the rectum, you find nothing to account for the bleeding, or if the escape of blood has the appearance of venous blood or is black in color and not of the usual scarlet color as we would expect from bleeding in the rectum proper, I would be suspicious of tuberculosis or carcinoma. I had a case a number of years ago of what was diagnosed as melanotic infection of the sigmoid flexure. The post-mortem possibly proved that, but in this particular case there was a decided stricture of the entire colon extending from the anus to the ceacum, with a number of ulcers located in the small bowel, which doubtless accounted for the very free hemorrhage at times. There is no line of treatment that I know of that is of much practical benefit in such cases other than what would result from restriction of the diet. An absolute milk diet will accomplish more than anything else. In reference to the tampon for the control of hemorrhage from the rectum, the method mentioned by Dr. Radebaugh I imagine to be a very effective and good one. Any tampon if it is properly and thoroughly introduced is the most effective and safe way of controlling hemorrhage from this part of the body. But the ordinary strips of gauze are more easily introduced; you can place them in with your finger, without the aid of a speculum or general anesthesia, if necessary.

Practical Therapeutics.

FOR CHRONIC RHEUMATISM:—

R	Tr. aconiti,		
	Tr. belladonnæ,		
	Tr. iodini,		
	Aquæ ammoniæ, āā	dr. ii	8
	Lin. sapronis, q. s. ad	oz. iv	120

Misce. Sig. Liniment. Apply every two hours.—Waters.

R	Liquor potas. arsenitis	dr. ii	8
	Pot. iodidi	dr. iii	12
	Syr. simplicis, q. s. ad	oz. iii	90

M. Sig. One teaspoonful three times a day, after meals. —DaCosta.

FOR SPASMODIC ASTHMA:—

R	Liquor potas. arsenitis	dr. ii	8
	Potass. iodidii	dr. iii	12
	Tr. lobelia	oz. ss	15
	Syr. sarsaparilla co. q. s. ad	oz. iv	120

M. Sig. One teaspoonful three times a day, after meals.—Wilson.

FOR ASTHMA:—

R	Pot. iodidi	dr. ii	10
	Tr. lobeliæ	oz. ss	15
	Syr. sarsaparilla, co. q. s. ad	oz. ii	60

M. Sig. Teaspoonful every two hours until relieved.—Anders.

FOR ACUTE BRONCHITIS:—

R	Ammoniæ muriatæ	dr. ss	2
	Tr. opii camphor.		
	Spr. æther. nitrosi	oz. ss	15
	Syr. pruni viginana, q. s. ad	oz. ii	60

Sig. One teaspoonful every three or four hours.

THE COLUMBUS MEDICAL JOURNAL.

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JANUARY, 1903.

Editorial.

STATE BOARD AND STATE MEDICAL LAW.

During the past seven years, under the surveillance of the State Board of Medical Registration and Examination, it is safe to say that more has been done to stimulate, elevate and dignify the medical profession than during the preceding twenty-five years. Seven years ago (February 19, 1896), the law to regulate the practice of medicine in the State, under which our State Medical Board was created, was passed. The first board consisted of N. R. Coleman, President; H. E. Beebe, Vice-President; J. K. Scudder, David Williams, C. A. L. Reed, S. B. McGavran, and Cady Markley. Of these, Drs. Coleman, Beebe, and McGavran are still on the board, and Dr. Winders is still Secretary, the other four having been succeeded by Drs. A. Ravogli, Cincinnati; H. H. Baxter, Cleveland; L. F. Towers, Toledo, and Sherman of this city.

On Dr. Coleman's retirement as President, Dr. Beebe was elected his successor. These changes make the eighth annual election of officers a sort of land mark in the medical history of the State—a suitable place for a moment's reflection upon the achievements of the past.

It would be difficult to enumerate all the advantages which this law has been to the profession and the public. The greatest of these have come not with demonstration, but they have been constant and pronounced, in furnishing better protection to the life and health of the commonwealth, in disrobing charlantry and criminality, and in guarding the portals of the profession against incompetency.

Looking back over the seven years of the Board's administration, one recognizes substantial gains for the profession, gains which reflect credit upon the State and the officials who have executed the law. Without any attempt at completeness in the enumeration of results, we note:

(1) That during that time Ohio has been elevated to the front rank among the states that are legislating thus in behalf of humanity.

(2) That the wise and successful administration of the registration law of 1896 prepared the way for, and helped to secure the passage of, the present examination law.

(3) That the elevation of educational requirements for the profession has placed the practice of medicine on a higher plane than ever before in Ohio.

(4) That the profession has been purified by the revocation of a number of certificates upon charges of immorality, drink and drug habit and criminal practice, thus restraining such practices among physicians.

(5) That the standard for entrance to medical colleges has been raised and made uniform throughout the State, greatly to the benefit of colleges, and satisfaction of the profession.

(6) That supervision has been placed over medical colleges, whereby five fraudulent colleges have been compelled to cease business in our State.

(7) That the classification and registration of physicians of the State, whereby each physician's credentials are known, has had a stimulating effect upon all and especially upon the young men just entering the profession, encouraging them to graduate from the best available colleges.

(8) That more than three hundred alleged practitioners of medicine have been prosecuted and at least five hundred such practitioners have been driven from the State.

(9) That the law has been so wisely administered that we have had no multiplication of examining boards for sects or

schools, but that on the other hand the middle walls of partition and signboards of discord have been gradually crumbling and flowers of professional ethics are growing upon their ruins.

The great work accomplished by the board in these seven years has won for its members the confidence and undivided support of practically the entire profession.

We have heard it said that the medical colleges have suffered, but certainly no medical college can be said to be injured by having illiterate students barred from its doors; the rather would it suffer, in the estimation of the profession, if such students were admitted. No well qualified students have been driven away, but on the other hand they have been rather attracted to the colleges by the assurance that the colleges, and especially the profession, are not to be overcrowded by the poorly educated.

UNIFORMITY OF EXAMINATION FOR ENTRANCE TO OHIO COLLEGES.

In an editorial in the *Journal of the American Medical Association*, entitled "A Higher Standard of Entrance to Ohio Medical Schools," the editor comments favorably upon the recent advancement in the standard of minimum requirements for entrance to the medical colleges of this State, and commends the Ohio plan as one that will soon have to be generally adopted. This appreciative editorial contains the following apologetic comment: "It is not to be expected that any new methods will be perfect from the first, and the present defects in the Ohio system, the lack of uniformity of examinations by the different examiners, for example, are only the temporary imperfections of a new machine that will be remedied by time and use."

The unintentional error in the above statement was promptly corrected in a later issue of the same journal, in the communication from Dr. N. R. Coleman, President, and Dr. Frank Winders, Secretary, of the Medical Board, and also by the editor of the journal.

The editor's comment throws considerable sidelight upon the status of knowledge among the physicians of our own State regarding medical legislation. It reveals a lack of information on the part of the informants which could certainly not be duplicated anywhere in the State among a like number of physicians.

The editor of the journal above mentioned, says that the objectionable paragraph in his editorial referred to, was based upon criticism made by gentlemen in Ohio. "While in that State recently," he says, "we took occasion to learn how the profession liked the new law and its workings, by interviewing several interested parties. With practical unanimity all agreed that the change was a good one, although it was hurting the colleges. The only criticism made was that the examination in the four cities was not uniform. None of those interviewed seem to know that the same questions were asked at all the examinations, and that they were, therefore, uniform. Three or four gentlemen were very insistent that this supposed lack of uniformity was a most grievous affair. An intimation was made, for instance, that the standard of examination for entrance into the Cincinnati medical schools was very much higher than for the schools in other cities. On the other hand, a gentleman from Columbus assured the writer that the standard in Cincinnati was much lower than in Columbus, that in the latter city being in fact higher than in either of the other three cities."

The plain inference bears rather heavily upon Ohio editors and the profession, and we are not surprised that the editor of the Journal of the Association should be "especially glad to be able to convey" the accidentally discovered "information" to the benighted "Ohio profession." The indication was that they needed it. Nevertheless it is astonishing that any physician in Ohio who pretends to be informed on medical legislation should give such information as the above.

I think without exception all the medical journals in Ohio published the main features of the present medical law at the time of enactment three years ago, the editors commenting on the advantages which would result from a uniform standard for entrance into the medical colleges, as well as from other valued features of the law. We have published in this Journal the list of questions which were used at each of the three examinations which have already been held in the State, and made regular announcements of the examinations which were to be had on the same date at the four cities in which the examinations were held.

We are glad that the Journal of the Association has been thus able to help "to convey the information to the Ohio profession that there is a uniformity in these entrance examinations in their state."

PROFESSOR KRAFFT-EBING.

The eminent psychiatrist of Vienna died at Graz, December 22, 1902. Prof. Krafft-Ebing was born at Mannheim in 1840, and was a pupil of Friedrich of Heidelberg, and Griesinger of Zurich, and soon after his graduation was appointed assistant physician of the Insane Asylum of Illenau. He served as Professor of Psychiatry successfully in the Universities of Strassburg, Graz and Vienna. He was a recognized authority on criminal psychology and psychiatry. The thirtieth anniversary of his career as professor was celebrated March 11th of this year, at which time a Festschrift was presented containing monographs by Professors Erb, Wagner, and others. "To him, more than to any one else, perhaps, we owe the recognition of the close relationship between psychiatry and neuropathology."

Obituary.

HENRY C. PEARCE, A. M., M. D., Ph. D.

Dr. Henry Clay Pearce, of Urbana, was born in Union township, Champaign county, April 10, 1833, and died December 1, 1902, being in his seventieth year at the time of his death. He received a liberal common school education and then read medicine, first with Dr. J. C. Carter, of Urbana, and later with Prof. John Dawson, of Columbus, and graduated from Starling Medical College in Columbus in 1857. He commenced practicing medicine at Mutual, but removed to Urbana in 1864, where he has since remained and continued to practice his chosen profession until infirmities compelled his retirement. He received his master's degree from Ohio Wesleyan University and the degree of Ph. D. from Heidelberg University.

Dr. Pearce was a recognized authority on several branches of his profession and for eight years lectured on physiology and histology in the Starling Medical College, his Alma Mater. He was one of the founders and a trustee of the Columbus Medical College and for seventeen years was an honored member of the faculty, filling the chair of obstetrics; a member of the Ohio State Medical Society, American Medical Association and an honorary member of the Indiana State Medical Society.

The deceased always took an active interest in public affairs and for many years was a member of the school board and the board of health of Urbana. His time and talents were always at the service of his adopted home. For over thirty-five years

H. C. Pearce M. D.

he was the surgeon of the P., C., C. & St. L. He was also a member of Harmony Lodge, F. & A. M.; Urbana Chapter, Raper Commandery, No. 19, Knights Templar.

In 1893, when returning from a laborious professional trip, he was stricken with paralysis, from which time he was an invalid.

The physicians of Urbana met in full attendance on the day of the death of Dr. Pearce, with Dr. S. M. Mosgrove, Chairman and Dr. E. W. Ludlow, Secretary, to pay tribute to the memory of their deceased friend.

The committee on memorial, consisting of Drs. J. M. Mosgrove, W. J. Sullivan and H. C. Houston, submitted the following resolutions, which were unanimously adopted:

WHEREAS, It has pleased Almighty God, in His wise providence to remove from our midst our worthy friend and professional brother, Dr. Henry C. Pearce, and

WHEREAS, It is but proper that we should testify to the world the high esteem in which he was held in the community and among his professional brethren and express the unfeigned sadness with which we assemble to pay our last tribute to the memory of the deceased.

Resolved, That in the death of Dr. Pearce the medical profession has lost one of its oldest and most faithful members, whose professional career of nearly a half century was distinguished by faithfulness, learning and ability as well as by his kind and sympathetic solicitude for the sick and his diligent attention to their wants.

Resolved, That we testify to the unbounded confidence and high respect in which Dr. Pearce was held by all who knew him and by the community in which he lived, not only as a physician, but as a man, without reproach in all the relations of life. We feel that not only has the medical profession lost an old and faithful member, but the community has lost a good citizen, and his wife and children an affectionate husband and father.

Resolved, That we tender to the bereaved family our heartfelt sympathy in their affliction and that in token of our respect for the deceased we will attend his funeral in a body.

Resolved, That these resolutions be published by the newspapers of our city and that a copy of the same be prepared by the secretary and presented to the family of the deceased.

With all the honor of the Scottish Rite Masons Dr. Henry C. Pearce was laid to rest. The large number of citizens from all walks of life attested the esteem in which the departed had been held by the residents of Urbana, where almost his entire life had been spent. The many floral offerings sent to the house were tender expressions of love from those who knew him best.

A beautiful ceremony in connection with the service was the bestowing of the Masonic ring upon the son of the deceased, Dr. Henry M. Pearce, by a representative of Enoch Lodge of Perfection.

Many friends and relatives from a distance were present to pay their last mark of respect to the memory of the deceased.

DEATH OF WM. E. HAVILAND, M. D.

Dr. Wm. E. Haviland, one of the prominent young physicians of this city, died December 30, 1902, at the home of his mother, 1627 East Main street.

Dr. Haviland had been in failing health for about eighteen months, suffering from tuberculosis, of which he died. He was born September 23, 1864, in Circleville, O.; was educated in the public schools of this city and graduated from Starling Medical College in 1889, since which time he has practiced his profession in this city. He was actively interested in public affairs and served on the city executive committee of his party.

He is survived by the following brothers and sisters: Mrs. John Hartley, Mrs. J. W. O'Connor, Mrs. J. W. Patton, Mary C., Margaret and John Haviland.

Josiah W. Lash, M. D., Columbus (Ohio) Medical College, 1878, a member of the American Medical Association, died at his home in Chillicothe, O., December 12, from angina pectoris, aged 50.

RESOLUTIONS ON THE DEATH OF DR. E. G. CARPENTER.*

At the December meeting of the Trustees and Faculties of the Ohio Medical University, the following resolutions were unanimously adopted:

WHEREAS, Eugene G. Carpenter, M. D., Professor of Mental and Nervous Diseases in the Ohio Medical University, has been removed from his earthly labors by death, the Board of Trustees and Faculties of the Ohio Medical University would bear testimony to his worth as a man and a citizen, his eminence as a neurologist and psychiatrist, and his value to our institution as a teacher and counselor;

Resolved, That this minute be inscribed on the records of the Ohio Medical University and that a copy thereof be transmitted by the Secretary of the Faculties to his wife. David N. Kinsman, John Edwin Brown, Josiah Medbery, Committee.

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* In the December issue we gave a biographical sketch and other resolutions on the death of Dr. Carpenter.

Medical News Notes.

Dr. C. M. Taylor has returned from a week's business trip to New Orleans.

Dr. F. S. Wagenhals and wife are making a several weeks' visit in Canada.

Coroner W. S. Mathews of Wood County, died October 9, 1902, aged 42 years.

Dr. Sherman Leach has removed his office from 818 N. High treet to 803 North High. Citizens' 'phone 1901. Bell, Main 682.

Dr. D. B. Hamilton, of Marion, Ohio, was through Columbus on his way home to bury his mother, who lived in Pennsylvania.

Dr. Coleman has retired as President of the State Board of Medical Registration and Examination. Dr. Beebe was elected President.

If the trustees of Rush Medical College raise $1,000,000 not later than July 1, 1903, the University of Chicago has agreed to receive the medical school as an organic part of the university.

Dr. W. D. Inglis and wife returned from a seven months' stay in Berlin, Vienna and other European cities, where the Doctor was engaged in professional study. He has located at 638½ North High street in this city.

CLINIC BUILDING FOR YALE.—Mrs. Thomas G. Bennett is the donor to the Yale University of the new clinic for medical school. It was just recently known who the donor was. The building is just completed at a cost of $96,000.

ANNUAL MEETING OF THE STATE BOARD.—At its annual meeting January 6, 1903, the State Medical Board of Medical Registration and Examination elected the following afficers:

President, Dr. H. E. Beebe, of Sidney; Vice-President, Dr. S. B. McGavran, Cariz; Treasurer, S. M. Sherman, Columbus; Secretary, Dr. Frank Winders; Stenographer, Miss Emma Headley, Columbus.

Dr. H. H. Baxter, of Cleveland, and Dr. L. F. Towers, of Toledo, were elected delegates to attend a national convention soon to be held to consider the subject of reciprocity between the medical boards of the several states. The applications for rehearings in the cases of Drs. A. E. Hoskinson and C. F. Cookes, of Columbus, whose certificates were revoked last summer for alleged unprofessional conduct, were refused. The Board heard charges against Dr. O. A. Price, of Cincinnati, alleged to have impersonated Dr. Jonathan Powell, of Pittsburg. According to the daily press, Dr. Price promised to refrain from this manner of unprofessional conduct in the future, and the case against him was laid over. "If he keeps his word it eventually will be dismissed."

Certificates were ordered granted to the successful applicants at the recent examination. There were 32 persons before the Board and 28 of these passed, the largest percentage in the history of the Board.

Successful applicants to whom certificates were granted: William F. Saybolt, Wooster; Frank Paul Anzinger, Springfield; John M. Frick, Toledo; John M. Anderson, Greenville; Charles A. Ulmer, Bucyrus; John W. Birk, Bucyrus; Charles Ramage, Cleveland; William P. Coons, Toledo; Normal L. McDearmid, Dayton; Bruce F. Metcalfe, Greenville; Gertrude Felker, Dayton; John W. Davis, Defiance; Thomas L. Baxter, Athens; Eleanora S. Everhard, Dayton; Henry M. Chase, Jr., Cleveland; William D. Cunningham, Girard; Elmer A. Powell, West Independence; Anton B. Spurney, Cleveland; Charles W .Bubna, Cleveland; Henry Otto Feiss, Cleveland; Curtis Laughlin, Steubenville; Thomas Adams, Cleveland; William H. Rieman, Toledo; William F. Knapp, Toledo; Clarence S. Orduay, Perrysburg; Frank Tipton Rudy, Hayesville; Thomas G. Rainey, Toledo; Mary Elizabeth Newcomb, Oberlin.

Recent Medical Books.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten, edited by Albert H. Buck, M. D., New York City. Volume V, illustrated by numerous chromolithographs and five hundred and seventy-six half-tone and wood engravings. William Wood & Co., New York. 1902.

The fifth volume of this great work, like those that have preceded it, has been thoroughly revised and much of it rewritten, and new matter added, bringing every subject up to date. It provides on the great variety of subjects included in the volume a thoroughly reliable and satisfactory statement of essential facts and scientific deductions of interest to the medical profession.

Nowhere else can be found such a collection of authoritive monographs on medical science. One will not be disappointed in turning to this work for the latest word on almost any subject that he may be investigating, for he will find the article has just come from the hand of a recognized authority, and the name of the author appended.

This volume opens with an article on Inflammation, by W. T. Councilman, Professor of Pathological Anatomy in Harvard Medical School, and closes with one on Mosquitoes in Relation to Pathology, by H. B. Ward, Professor of Zoology, University of Nebraska. To this volume 149 authors have contributed, all men of rank as scientists, practitioners and teachers. The article on Inflammation includes eleven pages; that on Influenza, six; on Insanity, 135; Intestinal Surgery, six; Joints, thirty-eight; Kidneys, fifty-four; on Larynx, fifty; Leukemias, seven; on Liver, thirty-nine; on Lungs, thirty-five; Lymphatic System, forty-five; on Military Hygiene, twenty-six, etc., etc. The editorial work has been admirably done, each subject being allotted space in keeping with its importance.

We take great pleasure in commending Dr. Buck's Reference Handbook of the Medical Sciences to teachers and specialists, as well as general practitioners. Once in the library it will be regarded as indispensable. *

A TEXT-BOOK ON DISEASES OF INFANCY AND CHILDHOOD. For Use of Students and Practitioners. By Henry Koplik, M. D., Attending Pediatrist to Mt, Sinai Hospital, New York; ex-President of American Pediatric Society, etc. Octavo, 675 pages, 169 engravings and 30 plates in colors and monochrome. Cloth, $5.00, net; leather, $6.00, net.

During the past decade scientific research in medicine has been especially active in the domain of Pediatrics. The literature of the subject has grown luxuriantly on both sides of the Atlantic. Much of it exists in monographs and special papers and is thus scattered and inaccessible by those conversant with the English language alone. The time, therefore, seems opportune for a work which should endeavor to gather and unify the world's best practice in a systematic volume. This volume is, however, not in any sense a compilation. It is based upon the author's individual experience and his careful judgment regarding the work of other pediatrists. Among its chiefer features, attention may be drawn to the exhaustive consideration given to methods of examination and physical diagnosis, the subject of infant feeding, the chapters on diseases of the lungs, stomach, intestines and heart. Thorough treatment has been given to diseases of the blood, and the articles on scurvy, scrofulosis, tuberculosis and the various forms of meningitis will be found specially full and attractive.

In tone the volume is markedly clinical and practical, the author has aimed to spare his readers the labor of deciding between divergent views and throughout adheres consistently to his purpose of affording students and physicians a practical guide and text-book. The work is illustrated with unusual richness, the plates being mostly original. **

OBSTETRICAL NURSING FOR NURSES AND STUDENTS. By Henry Enos Tuley, M. D., Louisville, Ky., Professor of Obstetrics, Kentucky University, Medical Department; Visiting Obstetrician to the John N. Norton Memorial Infirmary, Louisville City Hospital and the Home for Friendless Women, etc. Pages, 202. Price, cloth, $1.00, net. G. P. Engelhard & Company, Chicago. 1902.

This little volume furnishes a useful compendium for nurses. A nurse should have a certain amount of definite knowledge of the anatomy of the pelvis and the generative organs to fully appreciate the conditions with which she must meet in obstetrical nursing. Some knowledge of embryology is also desirable, marking the higher educational plane which modern nurses are supposed to occupy. In chapters one, two and three, these subjects are briefly and well outlined. Chapter four gives a good outline of the signs of pregnancy, a subject about which a nurse is frequently consulted. The remainder of the book is devoted to the various matters connected with nursing, such as baby baskets, and clothes, care of pregnant women, the accidents of pregnancy, labor, the nurse, the conduct of normal labor, operative obstetrics, the pueperium, child, infant feeding, nursing in sepsis and advice to expectant mothers. **

TUBERCULOSIS OR CONSUMPTION is the title of a monograph written by H. H. Spiers, M. D., Ravenna, O. Third edition. Price, $2.00.

The authorclaims to be the pioneer in the sanitarium method of combating this dreadful disease. His views are somewhat at variance with the established teaching, therefore, commands some attention from those who care to give their time to investigating theories. The author claims that the death rate from tuberculosis is in direct ratio to suspension of atmospheric influence, and that this may take place from within or from without. From without through impure or impoverished atmosphere; from within through defective lung tissue, original or acquired. Abeyance of atmosphere influence in whatever way induced, causes a depraved tissue or dyscrasia, through which the tubercle bacilli enter and grow. The growth being dependent on the precedent state or condition of the individual, is never, *per se,* the primary cause of tuberculosis. He sums up his idea of treatment in the following: "The plant growth being a secondary condition or modifying influence in this most fatal disease, treatment directed against this growth must ever remain barren of permanent curative results and dangerous to patient. **

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GINSENG.

BY JOHN INGLIS, A. M., M. D., PUEBLO, COL.,

Member American Medical Association.

During my services as physician in charge of a Peking, China, hospital, my attention was directed to this drug, commonly known as ginseng. The botanical name is Panax Ginseng. No remedial agent is of more reputed worth among the Chinese than ginseng. It has been used as a medicine for centuries. Some of the early missionaries working in China, finding what faith the Chinese had in the drug, sent samples of the roots and seeds to Canada. Lofitau, a missionary among the Indians in Canada, found what he considered to be the same plant. From this discovery, the Chinese supply being insufficient, began the exporting of ginseng from Canada to China. This, too, was in the early part of the eighteenth century. Father Jartoux, who first sent samples of the plant to America, was a Jesuist, and his time was almost one hundred years before even the beginning of modern missions to China.

This export trade grew to large proportions with the discovery of the same root in New England, and was carried on with immense profit for forty years, until the Americans began the shipment of very inferior plants, which ruined the trade to China for a long time. It has since been revived. But from the exporting of inferior roots at that early date until the present time American ginseng has been considered inferior to the Chinese and Korean. Though whether this is actually the case or not it is difficult to say.

Perhaps if the root were gathered and sorted here with the same care it would be found fully as good as the Asiatic. However, some authorities claim that the American plant, while closely related to the Chinese, is a different one, but belonging to the same family. Some botanists have classed ginseng with the natural order Araliaceæ, while others place it in the natural order Umbelliferæ. This latter is the parsley family.

American ginseng is found growing wild in the woods and shady groves from Canada to Georgia, and from the Atlantic to the foot hills of the Rocky Mountains. In some places it is being cultivated artificially, as the demand for export is at present enormous.

No Chinese ginseng can be obtained now for foreign medicinal purposes. The recent uprisings in China having been over the northeastern coast, the very territory from which a large supply of the ginseng comes, their home market has a demand far exceeding the supply. The plant comes up early in the spring and produces fruit about August. The season is later, of course, the farther north, and in Canada it will be found in fruit about the end of this month. When it first appears the ginseng plant resembles the bean very closely. It takes about three years for the root to develop. But even four and five year roots are considered better. When it first appears above the ground we find a stem with two leaves. The first year it grows about three inches; the second year it is about six inches above the ground; the third year it grows to be about ten inches high. When fully grown the plant may be twenty inches high. The stem bears at the top three palmately five-foliated leaves with long-stalked, serrated leaflets. *Aralia quinquefolium is often gathered and used in this country for the Panax ginseng. The latter produces greenish white or yellowish green flowers in a terminal umbel. These flowers produce scarlet red berries. These berries are two-celled and two-seeded. The spring after the second year the stem goes straight up from where the leaf-stalks meet, and at the end of it is found this cluster of berries. They are green at first, but later turn red and fall off about September.

The medicinal value of ginseng is found in the root. The root is fusiform, and two to eight inches long. It has a rounded head, closely annulated, dividing below into two or three branches when three years old. The color of it is light yellow.

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* Note.—The Aralia quinquefolium and Panax Ginseng both contain a bitter principle, the action of which seems identical.

Internally the root is almost white, breaks with a short fracture, has a sweetish odor and somewhat aromatic taste. The Chinese ginseng, so far as my knowledge goes, is certainly somewhat larger than the American, but otherwise seems to me to be the same plant. The root often appears in what is called man-shaped.

The natural home of ginseng is in the wild forest, where it is cool and shady and the soil rich. It does not grow in marshy soil. It is to be found mostly in the forest with the maple, oak and hickory. Ginseng cannot be produced in the sun; its home must be beneath the shade tree. It will, however, survive the coldest winters, as its growth away in North China, Manchuria and Canada proves.

The term imperial ginseng is often used. This differs in no particular from the wild plant. It takes its name from the simple fact that it is raised on government grounds, such as the hunting parks. In the city of Peking this so-called Imperial ginseng brings exorbitant prices.

The man roots, or those resembling in shape the human form, will sell for more than their weight in gold. The Korean plant is considered by the Chinese to be next best. Notwithstanding this fact, China today takes all the ginseng that can be gathered in America. I know of no more promising field for the agriculturist than the raising of ginseng.

The Chinese pulverize the root after drying it and make a tea of the powder. They claim great value for this as a tonic. But it is impossible to find out from the Chinese just what its specific value is as a medicine. No matter what the disease the first thing the sick Chinaman thinks of is ginseng. His implicit faith in his medicine helps to cure him beyond any doubt. Given such trust in any physician or any drug, and there is no question but what it would reduce our mortality record. If a man wants to sober up after a night of feasting and wines the remedy is ginseng. If he has used too much the opium pipe give him ginseng. If the baby's stomach is out of order, put ginseng into its food. If the appetite is gone it calls for the same drug. The rich season their food with it, as we would with pepper, believing it aids digestion. The aged Chinaman uses it in the belief that it keeps him from growing feeble.

Thousands of priests over the Empire use it in religious services and ceremonies, but apart from the fact that it is highly favored by the people and regarded as a costly offering, it is impossible to get a satisfactory explanation of its use in this particular. Even among an aboriginal people, such as our own Indians, it is impossible to find them clinging tenaciously to some drug without being able to discover some virtue in it. And so it is with this drug introduced to us by the Chinese. They have a greatly exaggerated value for ginseng; this has grown up around it because of its use for centuries and is due partly to their paucity of therapeutic remedies. But after making all due allowance for their reverence for the drug, we find that there is good reason for some of the claims made for it, especially its good effect in dyspepsia. The greatest difficulty today is in obtaining a good preparation.

The root will easily bring $4, even $5, a pound to the gatherer of it from the woods. Therapeutically it will be found very valuable in that large class of patients suffering with what we call atonic dyspepsia. Where food lies in the stomach for an hour or so before digestion begins ginseng will be found to be an admirable remedy. In the treatment of nervous dyspeptics with malnutrition its good effect is marked. Ginseng stimulates gastric secretion. In sour stomach and flatulency it will often bring about a normal condition.

Stomachic is a much-abused word, but it may be safely applied to ginseng. For the dyspepsia of nervous prostration it is good. Its present price is a great drawback to its use in general practice. Ginseng will be found much superior to the peptic preparations now on the market in such large numbers. It is worthy of being brought to the careful consideration of the profession. A tincture may be made of the root and of this the dose is from 5 to 60 drops, for an adult. Of the pulverized root 10 to 20 grains is a dose, though as high as 60 grains are given by some. It is soluble in both alcohol and water. For dispensing it is well to use an aromatic preparation.

MISDIRECTED SYPHILITIC THERAPY.

BY M. L. HEIDINGSFELD, PH. B., M. D.,

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The report of the following case is of particular interest in reference to a few points in the treatment of syphilis, relative to which there still exists some difference of opinion, namely: "When shall constitutional treatment be instituted?" and "Shall the mercurial treatment be continuous or interrupted?" To my mind, in the general run of cases, and with very few exceptions, there can ultimately be no room for any difference of opinion in the answer to these two questions, and the study of individual cases like the following will serve to firmly establish one definite period in the course of the disease as the correct time for the institution of treatment, and one particular method of administration as the correct one in the management of this disease which, under properly instituted measures, is usually very amenable to treatment. It is a grave mistake, I believe, to begin constitutional treatment, before the diagnosis is firmly established beyond a reasonable doubt, although this practice still very generally persists, as exemplified by the following case. It is equally grave, I believe, to institute constitutional treatment before the diagnosis is established beyond peradventure of a doubt, and that is to say, before the appearance of the roseola or mucus placques, or equally positive associated evidence. No less of an authority than the celebrated French syphilographer, Fournier, has stated that no one, no matter however skillful in diagnosis, nor how rich in experience, is able to positively state that a lesson is definitely syphilitic, beyond peradventure of all doubt, until it is positively confirmed by the appearance of the roseola. Yet how often do practitioners digress from this dictum and institute constitutional treatment before the roseola manifests itself, not only with the idea of giving the patient the benefit of the doubt, but also for the purpose of modifying the intensity of the syphilitic infection, and as I have actually heard it expressed, of aborting it. It is clearly evident that the disease cannot be aborted in this manner, and the cases which show no future manifestations are, in all probability, non-syphilitic infections. According to some of the best investigators and observers, this early institution of constitutional treatment not only fails to modify the intensity of the infection, but actually renders it more intense, makes its course exceedingly irregular and atypical, and prevents the healthy reaction of the system against the disease, which takes the form of expression in the well-developed roseola. Watrezewski has demonstrated that 70.4 per cent. of the cases of malignant syphilis, syphilis precox, syphilis of brain and cord, syphilis with severe and grave complications, occurred in individuals, when treatment was instituted before the appearance of the roseola. The case in question also bears out this impression, for the early institution of treatment materially failed to check future manifestations.

The second question, as regards which method of administration to employ, the continuous small dosage, as advocated by the French school, or the interrupted, with large, as advocated by the Germans, is answered in favor of the latter by a careful study of the case.

H. E., aged 27 years, of the city of C., consulted Dr. X., his family physician, a practitioner of good standing, relative to a small pimple on the glans penis.

Dr. X. pronounced it an initial syphilitic lesion, and proceeded to give him constitutional treatment in the form of soluble mercurial injections, combined with internal treatment in the form of protiodide of mercury, gr. ¼ four times a day. After an interval of several weeks some doubt apparently arose in the mind of Dr. X. as regards the true nature of the trouble, for he advised a consultation with Dr. Y., who enjoys some reputation as a venereal specialist, for the purpose of confirming his diagnosis. Dr. Y. confirmed the diagnosis of Dr. X., but the doubt which apparently manifested itself in the mind of Dr. X. soon began to take seed and grow in the mind of H. E. At all events H. E. presented himself to me for the purpose of submitting to a careful examination in order to determine the presence or absence of the disease on September 2, 1902. The examination, aside from a slight general adenopathy, to which no material importance could be attached, revealed nothing of a confirmatory nature, and the patient was referred back to Dr. X. with instructions that if any doubt persisted, or if anything of a suspicious nature should manifest itself, he should ask Dr. X. to consult with Dr. Z. From the statement of the facts and the negative character of the examination, my personal impressions at the time were that the patient was not infected with syphilis, although this opinion was concealed from the patient, and the diagnosis syphilophobia was entered. On October 5, 1902, patient presented himself for the second time and stated that he had withdrawn himself from the care of Dr. X. and had placed himself under the attention of Dr. Z., who was inclined to the opinion that he had infected himself with syphilis, and had prescribed 1-6 of grain of bichloride of mercury to be taken three times daily. He asked for another examination, which revealed two typical mucous placques, one on the right lateral border of the tongue, the other on the right lateral border of the uvula. Patient was informed that the diagnosis of syphilis was confirmed, and was referred back to Dr. Z. for further attention and treatment. Up to this time patient's general health was good, and aside from some slight nervous worry relative to his infection, experienced no distress or ailment. His color was good, appetite and sleep unimpaired. On November 1, 1902, patient presented himself for the third time, stating that he was not at all satisfied with the progress of his case, and that for the past few weeks he was feeling miserable and greatly distressed, appetite was impaired, sleep was disturbed, and he was unable to transact his business with his usual alacrity. Besides, his mouth was troubling him, in spite of the fact that he was giving it the most faithful care and attention. Examinaton at this stage revealed the gums in a healthy condition, no mercurial stomatitis having as yet manifested itself. There was a large ulcerated mucous placque on the right lateral border of the tongue, another on the upper gum over the left lateral incisor, left canine and left bicuspid, and several smaller ones on the lower lip. The mucous membranes were unusually pale, and the patient presented a very anemic condition. The mucous membrane of the month in general presented such an unusual excoriated, roughened appearance, that it was deemed advisable to consult a nose and throat specialist, Dr. S. E. Allen, who, without knowledge of the previous condition, attributed most of the peculiar change to the patient's anemic and run-down condition, and ultimately, afterward, to the continuous dosage of mercury. Patient, in addition to the previous mercurial treatment which had been uninterrupted for the past four months, had been taking internally ½ grain of bichoride daily for the past two months. Nevertheless, in addition to the changes above mentioned, the patient had a marked syphilitic paronychia of the index, middle and ring fingers of the right hand, and the little finger of the left. There can be no question but that this continuous ingestion of such a toxic and irritating a substance as bichloride has not only exerted a marked deleterous action on the stomach and intestines by its direct presence in these organs, impairing digestion and inducing mal-assimilation, and a consequent general run-down condition, but likewise has exerted a harmful effect upon all the internal organs, and the liver in particular, to which organ it is first carried in its assimilation. The liver, which, as we are beginning to believe, is a filtering and eliminating organ of all toxic substances taken internally, must also exert this selective action upon the mercury, which would render a large proportion of the mercury inefficient against the disease. In a disease like syphilis, it is highly important to conserve to the fullest extent the general nutrition of the body, and when the latter suffers, be it from natural causes, complication of diseases, or, as above, from deleterious influence of treatment, syphilitic manifestations become more active, and only intensified by prolonged or increased mercurial treatment and control is lost. This is common experience, and whenever cases of this character present themselves, it is my steadfast rule to remove them, in spite of active manifestations, from mercurial treatment, and place them for the time being on general tonic treatment. When the system has been sufficiently toned up, usually after an interval of from four to eight weeks, the mercurial treatment is re-established, and with more prompt and positive results. It is in these cases in particular, and in all cases, wherever practical, that I employ mercurial injections, of metallic mercury, in order to spare the alimentary tract from any deleterious influence, and at the same time avoid the filtering and eliminating action of the liver. The above case is therefore of particular interest, because firstly, a palpable error was made in the establishment of a too early diagnosis. If same was made in order to give the patient the benefit of the doubt, the doubt which afterwards arose not only in the mind of the patient, but also in the mind of the practitioner (Dr. X.), inured more harm than any good it was capable of producing. If it intended to modify or cut short the course of the disease, it failed materially also in this direction. Secondly, the continuous form of treatment is irrational on apriority grounds, and, as exemplified by this particular case, has failed signally from a practical standpoint. Mercurial treatment should be instituted not longer than six to eight weeks at a time, at stated intervals, an interval of four to six months or longer being allowed during which the general nutrition can be improved, aided with tonic treatment, since the disease can be easily kept in abeyance for that length of time.

When practical it has been, and will continue to be, my steadfast rule to keep constitutional treatment in abeyance until the reseola manifests itself—unfortunately, in a few instances, it has cost me the loss of a patient. I recall two instances the past year, where both cases went to a well-known brother specialist, who incidentally cast a reflection upon such methods by stating that no time should be lost in the treatment of such a grave and important affection. One was an unquestioned hard extragenital chancre of the lip, the other a very questionable chancre of the penis.

FRACTURES OF THE HUMERUS.

BY SHERMAN LEACH, M. D.

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While the humerus is frequently the seat of fracture, yet it does not occur so often as does fracture of the clavicle or the bones of the forearm. It constitutes about 8 per cent. of all fractures. Usually these fractures are divided into those of the upper extremity or shoulder, those of the shaft, and those of the lower extremity or elbow.

Fractures of the upper extremity may occur through the head of the bone, at the anatomical neck, through the tuberosities and at the surgical neck. Fractures of the anatomical neck are very rare, likewise fractures through the head seldom occur except as a complication of the more extensive fractures of the tuberosities and surgical neck. These fractures are generally the result of direct violence and the symptoms are not as a rule distinctive enough to permit of any particular differential diagnosis. As a rule you will find the shoulder swollen and its rotundity gone; there will be more or less flattening of the joint area together with crepitus, loss of function and pain. Fractures of the surgical neck are most frequently seen and are the most important of this group. The seat of the fracture is usually below the tuberosities and above the insertion of the muscles of the axilla, which muscles are responsible for the deformity that results from this fracture.

The symptoms accompanying this fracture are, as a rule, well marked. The head of the bone will be felt in its proper position, the end of the upper fragment is always pulled in by the action of the pectoral and latissimus dorsi muscles, crepitation is marked, the function of the arm is lost, mobility is free and there may be shortening, all voluntary movements are lost and the head of the bone will be found in its proper place, but does not rotate with the shaft of the bone when making passive movements. These fractures may also be impacted, then the symp-

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* Read before the Franklin County Medical Society, September 9, 1902.

toms in that case will be much more obscure, and a probable or approximate diagnosis is all that should or can be made; neither is the surgeon warranted in using such force as will result in the breaking up of such impaction and rupturing and tearing other structures which have previously not been injured. In all injuries of the shoulder joint, the upper half of the body should be bared, in order to be able to compare the injured side with the sound one; by inspection we can determine the appearance of the shoulder, whether or not there is any deformity, such as swelling, flattening, etc. Measurements may then be taken to ascertain whether there is shortening, or rotary displacement; by touch you will be able to appreciate any fragments that may be much displaced, and so on. Among the first things to be determined by way of differential diagnosis, is to exclude a dislocation of the shoulder joint. This is usually not difficult, except when the fracture is complicated by dislocation; if the head of the bone is found in the glenoid cavity you can then be positive that you have no dislocation. A full appreciation of injuries to the blood vessels and nerves should always be borne in mind, as the prognosis will thereby be greatly affected. Lastly, if there is any doubt existing in the mind of the surgeon, a skiagraph should be made. The prognosis in these fractures at the shoulder joint are, in so far as complete repair of the fracture is concerned, usually good.

In cases of impacted fractures, the solidity of the bone occurs very quickly, in the cases where complete and perfect reduction has not taken place, the excessive callus that is thrown out may interfere to a greater or less extent with the proper and free motion of the joint, but even in such cases time will often restore the joint to what may be termed, almost perfect, use.

TREATMENT: In the impacted fractures, incomplete fractures and in those with but little displacement, nothing need be done save that the parts should be thoroughly and completely immobilized and a suitable bandage to confine the arm to the side of the chest, at the same time the arm and wrist should be carried in a sling. Should there be much contusion, swelling, pain, etc., attending the injury, they may be allayed by rest in bed, the use of evaporating lotions, or an ice bag applied. After the first few days the parts may be massaged for about fifteen minutes daily; this will, in a measure prevent muscular atrophy and prevent the joint stiffness; at the end of three weeks passive motion can be commenced and at the end of the fourth week the restraining bandage can be removed, and active movements begun.

In the treatment of fractures of the surgical neck, reduction is the first thing to be accomplished, which may easily be done by extension and counter extension, together with such manipulations as will serve to get the fragments well coapted. The surgeon should bear in mind that the deformity is due to the action of the pectoral and latissimus dorsi muscles, together with the contraction of the teres major, whose action draws the lower fragment inward. The upward displacement is due to the contraction of the pectoralis major, coraco-brachialis biceps and triceps; we should likewise remember that this fracture usually occurs between the tuberosities and the insertion of the latissimus dorsi and teres-major muscles. The treatment for this special fracture is also applicable to the other fractures of this group. The splint best suited to this fracture is the plaster of Paris made by saturating flannel compresses in plaster of Paris cream; it should extend from the elbow joint to the top of the shoulder and should cover both; the entire arm should first be wrapped in cotton batting which should be held in place by a few turns of a gauze bandage, then while traction is being made by an assistant, the flannel compresses may be applied and moulded to the parts, after sufficient time has been allowed for the plaster to thoroughly harden it may be removed and the edges trimmed off and the splint lined with some suitable material, such as adhesive plaster; it may then be applied and the arm made fast to the side of the chest wall, previously a compress of cotton should be placed in the axillary space and retained there by a strip of adhesive plaster. The forearm should then be supported by a sling. Some authors prefer not to immobilize the elbow joint, but leave it open so that the forearm will make sufficient extension. This dressing may be changed as the condition of the fracture and comfort of the patient may indicate. Massage is not so important as in the fractures involving the head of the bone. Passive movements may be begun at the end of the fourth week and active motion at any time that the examination shows the parts to be firm and solid. In concluding this group of fractures, I wish once more to impress upon your minds the importance of determining, first, whether the head of the bone is dislocated; second, that the injury is not complicated with a fracture of the neck of the scapula.

FRACTURES OF THE SHAFT: This fracture usually results from direct and indirect force, but may be occasioned by muscular action alone. The fracture may present every variety and form of displacement that may occur in any long bone. They may be complicated by injury to the brachial artery and musculo-spiral nerve, also they may be compound, comminuted, infected, and so on. The displacement may be lateral, angular, rotary, or the fragments may overlap, increased mobility is present, crepitus is always easily obtained; shortening may be present, together with swelling and pain. Injury to the artery may be detected by absence of the radial pulse. Motor disturbances and sensory involvements indicate the extent of the nerve injury. The diagnosis should present no difficulties as all the usual signs and symptoms of fracture are present and crepitus can always be elicited. Possibly the most important part the surgeon has to deal with in this form of fracture, is the making of a prognosis. While the majority of these fractures get well perfectly, with complete function restored, and perfect union, yet there are more cases of delayed and non-union of this bone than is met with in any other part of the skeleton; therefore, our prognosis should always be guarded. Agnew in his work reports 219 cases of ununited fractures of this bone. Various reasons have been advanced, but the most frequent, if not the cause, lies in the fact of imperfect immobilization. Some shortening is almost inevitable in oblique fractures, but is of no importance, since the function of the arm is not interfered with. Rotary displacement is of more importance, but can be guarded against by observing, when applying the dressing, whether a line, drawn from the greater tuberosity to the external condyle, is parallel to the axis of the shaft of the bone. Reduction of this fracture is to be accompanied by extension and manipulation. When the fracture is attended with extensive contusion and bruising of the soft parts, as they frequently are, the patient should be put to bed, the arm supported by pillows or other soft material, and some evaporating lotion used until the swelling and acute symptoms subside. This will usually require from 5 to 8 days. During this time a close watch should be kept for any signs of injuries to the blood supply and to the nerve trunks. If the circulation is in the least compromised everything acting as a constricting agent must be removed. In this, as in fractures of the surgical neck, the same plaster of Paris dressing may be used, with the addition of some coaptation splints, over the seat of fractures which may be secured in place by strips of adhesive plaster. After this the plaster splint may be applied, having first enveloped the entire arm in cotton and placing a well-fitting pad in the axilla and building up the irregularities on the inner side of the arm with cotton and then the entire arm may be made fast to the side of the thorax. The forearm should be placed at such an angle over the front of the chest as will feel comfortable to the patient, and this made fast to the chest wall by a sufficient number of turns of a broad roller bandage. Should firm union fail to take place by the end of six weeks, massage and pounding over the seat of fracture should be used twice a week; at the same time the arm should be kept immobilized. If, after from four to six weeks of this treatment, union is still delayed, the fracture should be exposed by a proper incision in the long axis of the limb, being careful not to injure the nerves or blood vessels, and the ends of the bones exposed, thoroughly freshened and brought together and retained there by any of the modern procedures, such as dove-tailing the bones together, and fastening them by silver wire sutures, or by moulding a piece of steel plate around the seat of fracture, which may at the end of six weeks be removed.

FRACTURES OF THE LOWER EXTREMITY: Fractures of the lower end of this bone are also of frequent occurence, and are, in so far as the surgeon and patient are concerned, more important than any other break of this bone.

From the fact that permanent disability and deformity so frequently result, even though the greatest skill and judgment have been used in the reduction and subsequent treatment of the case, makes this group of fractures of the highest importance from the standpoint of diagnosis, reduction and adjustment, and the retention of the fracture subsequently. The epicondyles may be fractured frequently and the accident usually results from direct force, the internal being most frequently broken, owing to its greater prominence. This fracture does not involve the joint, and the displacement is very slight, due to the fragments being held in place by the dense and strong fascia which surrounds this part; however, it sometimes happens that they become torn loose. If this does occur and they are in bad position, it is wise to remove the fragments.

The proper treatment is immobilization with the arm fixed in a flexed position. Supra condyloid fractures and epiphyseal separation are very similar in many respects, as regards symptoms, correction and treatment. When the epiphysis is separated the line of separation is much nearer the joint than in the supracondyloid fracture; the position of the arm is much the same, as in both, the arm is slightly flexed, with marked fulness in front of the elbow, and the olecranon much more prominent posteriorly. The deformity is increased in extension of the arm, and diminished on flexion. Here it is of importance to remember the relation that exists between the olecranon and the int. and ext. epicondyles, as in both the fracture and the epiphyseal separation the same relation is maintained. If a line be drawn from one epicondyle to the other in a vertical plane during flexion it crosses the top of the olecranon. If the arm be extended, a line drawn in a horizontal plane also touches the top of the olecranon. In a dislocation of both bones of the forearm, which resembles this fracture very closely indeed, this relationship does not obtain. Either condyle may be broken from the other or from the shaft of the bone. In the supracondyloid fractures we often have a line of fracture extending from the transverse line of fracture down to the joint, constituting what is known as the T fracture. In fractures of the internal condyle we are apt to have a backward displacement of the bones of the forearm, with a widening of the joint; we will have swelling, contusions, increased mobility, and crepitus present. The deformity may be marked in any of these injuries, but is more marked in the intercondyloid variety.

In the treatment of this class of fractures we should bear in mind that our success will depend, in a great measure, upon the accurate adjustment and the proper maintenance of the fragments, in position; because the fracture involves the joint it does not imply that we are to have an ankylosis or a bad result. An anesthetic here is often required to make a diagnosis as well as to properly reduce the fracture. The peculiar relation of the olecranon process and the internal condyle, should not be overlooked, because when this condyle is broken off it is held between the coronoid and olecranon processes, consequently the ulna itself is the best means of putting the fragment in proper position. You should remember that the forearm forms an obtuse angle with the arm, thereby preserving the carrying function of the arm. This angle is only present when the arm is extended; therefore, it is best to put fractures of this type up, with the arm in the nearly extended position, in order to preserve the carrying function of the arm. The great mistake in the treatment is usually in dressing this fracture, by putting the arm up at a right angle. This should never be done during the first ten days to two weeks of the treatment. According to recent authority, the only arm position which meets all the indications and maintains complete security, and estimates properly the obtuse angle of the elbow, is one within a few degrees of complete extension, and the only splint with which this position can be maintained, is one made of plaster of Paris, which has been thoroughly rubbed into some suitable material and moulded carefully to the arm. The sound arm should be a guide and the injured member should be made to assume the same shape and form as nearly as possible.

In fractures of the outer condyle these conditions do not prevail, so the arm may be put up in any position that will be comfortable to the patient and hold the fragment in position. Any and all of these fractures of the lower extremity of the humerus, may require a certain amount of extension for a few days to prevent and overcome the tendency to lateral separation and widening of the joint. For almost any fracture of the upper extremity, the plaster of Paris, splints will come more nearly meeting the indications than any other, because they can be moulded to the arm and are always well fitted. As regards passive motion there is quite a difference of opinion existing among different men, some advise it, while others bitterly condemn the procedure.

THE PAST IN MEDICINE AND ITS RELATIONS WITH THE PRESENT.*

BY S. BELKNAP, M. D., NILES, MICH.

The object of our annual meetings is pleasure and profit; the pleasure we derive from association with one another, the profit from an interchange of ideas. It has been my privilege to participate in the meetings and to derive great benefit from them without—it has seemed to me—contributing as much as I would have liked to do myself to their success. Today, however, I am trebly bound to do what I can, for three reasons: (1) This is my sixty-fifth birthday, (2) you have conferred upon me the honor of presidency of your Association, (3) this is the fifty-seventh anniversary of the use of ether as an anesthetic. Under these circumstances and because my labors have practically all been in the active practice of medicine and surgery, rather than in experimental lines, I am constrained to dwell upon the past and its relation to the present, rather than upon the present and future alone.

Practical experience is the physician's laboratory, and it seems to me a physician who has for over forty years applied practically the science and art of medicine, ought to have good reason for the faith that is in him. He it is who has had most opportunity to watch the development of medical and surgical methods in all their varying phases, who realizes their value and who quite likely has contributed to them in a lesser or greater degree.

Medical pretenders prey upon the ignorant today just the same as they have during all my experience. Dowie and Mrs. Eddy are but little different from their older prototypes. There has not been a year of my practice that some of this class were not plying their vocation with more or less success. They rise and flourish and wither like the flowers that bloom in the spring. I cannot see that their pretensions are materially changed nor that the results they obtain differ; but from Gross and Mott to Murphy and Park is indeed a long space. In other words, while the methods of deceiving people have not changed much, if any, since the Romans and Greeks visited the caves of Æsculapius to consult the rustling leaves, the true science and art of medicine has entirely changed, and what is still better for you and me, the intelligent people have come to realize it.

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* **Address of President Dr. S. Belknap at the annual meeting of the Association of Big Four R. R. Surgeons, at Columbus, O., November 16, 1902.**

While I realize that this age has learned all that past ages have to teach, more thoroughly than any age which has preceded it, while it has added to their wisdom more than its quota, still the words of Dr. Joseph H. Gallup, published in 1815, are as true today as then: "Physicians, like all other characters, are liable to vibrate from one extreme to another and may sometimes be led by fashion." In my youth, it was only necessary for a young man to be of good moral character, of proper age and to have had three years of experience and study under a regular practitioner of medicine in order to enter a medical college. At the expiration of this three years of study and experience, the aptitude of the student for the further study and practice of medicine was generally quite apparent to his preceptor and himself. If he lacked the proper qualifications, his preceptor was generally not slow in telling him so. If he had these, he grasped with assurance and energy the facilities afforded him. The only relic of that old-time preceptor is found in the catalogues of some of our medical colleges, where the name of some practitioner of medicine is inserted after the name of each student, in deference to the old custom. I am persuaded that it was a useful requirement and that with it today, the number of graduates in medicine would be more nearly limited to the requirements and that fewer of the lamentable failures of which we see so many, would occur. It seems to me a shame that those who have really no chance of success in the practice of medicine, either because of a lack of ability or inclination, should be allowed to spend their money and the best years of their lives in its study. While science supplies in a great degree, it is true, which it was formerly necessary to have practical experience to acquire, still the tax upon memory is so great under the present extensive educational system in medicine, that time enough is not given to training the reason in the application of those rules which are so necessary to success. The strain laid upon the reasoning powers and professional instinct is often too great, and the young physician finds himself at sea on matters which require prompt decision. To simply teach the use of febrifuges in fever, without due regard to allied conditions, is to create a worse than useless doctor. We cannot yet draw hard and fast lines in medicine for every case. We have still Nature in its varied forms to deal with, just as we had it forty years ago, only modified by modern methods of living. The dissecting-room habitué sometimes becomes a drug nihilist by scientific deduction along the same line as the carpenter and machinist reaches his conclusions. The microscope reveals bacilli and casts and he may condemn his patient to death along the same hard and fast rules, and yet the patient recovers from causes which the dissecting room and the microscope fail to reveal. There is back and beyond, the great powers of Nature and of Art which he has failed to consider, which indeed it is not within the power of books, of dissecting-rooms and microscopes to fully and satisfactorily explain.

Science may teach, and the physician may learn from books the normal number of heart-beats and the use of digitalis and strophanthus, but at the bedside he who has the power to feel the varying phases of the pulse-beat, to note the allied condition of his patient, will continue to cure the most violently acting heart at times with a dose of calomel or assafetida that the scientific deductionist cannot touch with his digitalis and strophanthus.

* * * *

In my way, I have tried to contribute to the advancement of my profession, but I do not recall but two ways in which I have been instrumental in adding anything which has stood the test of time and is still quite generally used. Among those who studied medicine with myself and my partner, Dr. W. M. Huntington, of Rochester, Vt., who still lives to bless his kind and to receive the honors due a man who has made the welfare and happiness of others his first object in life, was Dr. McIntosh, who afterwards became a manufacturer of electric batteries, etc., in Chicago, Ill., and as such is, I presume, known to most of you. McIntosh never cared very much for the study or practice of medicine and was one of those who were weeded out by the process of education which prevailed at that time, as I have pointed out. McIntosh was rather of an inventive turn of mind. Among the cases which I had under my care at this time was one of prolapsus uteri, which gave me much trouble and for which I conceived the plan of having a special supporter made I went to Codman & .Shurtleff, of Boston, and had them make an instrument after my ideas, but there some improvements were made. I was, however, able later to use rubber tubing, etc., and so make it adjustable and in its new form it gave my patient relief. This instrument afterwards became the McIntosh Natural Uterine Supporter, which I presume some of you have used or have seen it in its original or imitation form.

During one of the first years of my medical practice, our community suffered a severe epidemic of diphtheria. About every case seemed to die. My partner and I did our best, but each case seemed to add one more to our crown of thorns and our conceit was entirely gone. The treatment at this time was stimulation. Alcohol in abundance was given. We decided to try calomel and from that time on our cases got well. At the next meeting of our State Medical Society I prepared and read a paper on the treatment of diphtheria with calomel. This paper was received with ridicule by the Society. One of my old professors arose and said that he was surprised that any student of his would advocate the use of calomel in diphtheria. It was contrary to all theories or common sense. My preceptor then arose and in measured tones said: "I do not know as it is theoretically scientific, but one thing I do know, that whereas our patients died before we gave calomel, a large per cent. recovered afterwards." The next year I had the pleasure of hearing the same professor who had condemned me, beg my pardon and acknowledge that in his hands calomel had proven the best treatment, "although," he added, "I cannot see any reason in it."

All that has been said does not apply in equal degree to the practice of surgery. The surgery of forty years ago is not to be compared with the surgery of today. During this time the modern surgery has been born and developed almost in its entirety, and basing our claims upon it alone, we have great reason to be very proud of our profession.

The war developed the distinctly American surgeon first. Science put into his hand a technique far better than has ever before existed, while the high pressure life of our times, with its ponderous machinery moving with lightning-like speed, has furnished him employment and bids fair to do so in the future. He is now a necessity, and his works speak for themselves so loudly that none may dispute.

The great stride from laudable pus to asceptic union has been made. I congratulate you, younger men, just entering upon the period of your usefulness, that it has been made. You have reason to take pride in your profession. Its present status represents the untiring life efforts of some of the best minds the world has produced. The future has much in it for those who are brilliant enough to grasp it.

While the progress in surgery and its allied branches has been marvelous, I am forcibly impressed with the idea that we have been sadly negligent, or rather, backward in our therapeutics, thereby neglecting one of the most important of all branches of the medical profession; and it is to this fact that I am inclined to attribute the apparent flourishing condition of the so-called homeopaths, physio-medical and other forms of quackery at the present day, we having in our zeal to become eminent surgeons, forgotten or lost sight, not only of our thereapeutics, but even of vix medicatrix naturæ, depending largely upon the knife for the relief or cure of many cases which might be more successfully treated even by Nature alone.

And now, in closing, I wish to thank you sincerely and profoundly for the high honor you have seen fit to confer upon me—an honor which I shall never cease to cherish, together with the many fond memories of you each individually.

NOTES FROM ABROAD.*

BY C. F. CLARKE, M. D., COLUMBUS, OHIO.

In a large proportion of his cases of cataract S. Mark Dufour, of Lausanne, Switzerland, makes the downward section; and in spite of the fact that I had always considered it unscientific, I must confess that the beautiful result I saw in his hospital in various stages of progress and the ultimate results convinced me that I have certainly overestimated the disadvantages of this method, which he states he prefers whenever, for any reason, he finds it difficult to turn the eye downward. The healing was perfect in every case which I had an opportunity to observe.

He also did, in my presence, an operation for iridectomy in a case in which the anterior chamber was almost obliterated, using a knife like a gum lance for the first incision, which he completed with small, blunt pointed knives. Though somewhat complicated, the operation was quite a success.

Jequiritol.—Prepared by Merck, of Darmstadt, in varying strengths, which are carefully graduated and marked 1, 2, 3 and 4, with a serum for neutralizing its ill effects, if excessive, seems to have been given a fair trial in only two or three of the clinics I have visited and both in Birnheimer's and in Fuchs' clinic it was deemed a remedy of great value, being resorted to in cases of pannus and other forms of corneal opacity which had not yet become permanent, but which often fail to yield to the usual treatment.

In Fuchs' clinic I saw one case in particular of strumous keratitis in which most marked improvement had followed its use.

Airol.—Biernheimer reports most excellent results from the use of airol, introduced by D. Römer, of Basle, as an antiseptic dressing and local application in those cases in which nitrate of silver would be used. He applied it to corneal ulcers and in dressing wounds of the lids very much as iodoform is often used.

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* Taken from the Ophthalmic Record, September, 1902.

In *parenchymatous keratitis*, iodine in strong solution, applied to the surface of the cornea, was reported to have yielded excellent results. This was in one of the most famous clinics in Europe, and one realizes what radical differences exist in the methods of various high authorities when he discovers that in such a clinic the use of hot fomentations is never resorted to. How a remedy which seems so essential to me, and, I believe, to most ophthalmic surgeons, can be entirely dispensed with in a large and most celebrated clinic I am at a loss to explain.

In *persistent conjunctivitis* I found a number of men who resort to systematic syringing of the lachrymal sac and in recurring corneal ulcers, phlyctenular or of other character. Dufour even goes so far as to slit the canaliculus and syringe, notwithstanding the fact that no positive evidence of the presence of dacryocystitis is discovered. He tells me that by this means he sometimes succeeds in curing most obstinate cases of persistent or recurrent ulceration of the cornea.

Restoration of the Lower Lid by transplanting a piece of the external ear, according to the method of Böttinger, has been practiced several times in Fuchs' clinic and I had the pleasure of seeing one such operation performed by his assistant. In two former cases they had obtained very good results, and there seemed every reason to expect a good result in the case I observed, though when I came away it was too early to judge of the final outcome.

In brief it consisted in the transfer of a portion of the cartilage of the ear with one skin surface as a substitute for the inferior tarsal cartilage and inferior palpebral conjunctiva, the outer, or cutaneous surface of the newly formed lid being taken from lower central portion of the forehead over the base of the nose by a twisted pedicle.

The operation does not seem to be applicable to the upper lid, but in the case to which I refer, appeared to afford an excellent substitute for a lower lid lost by epithelioma.

Operative Method and After Treatment of Cataract vary greatly in different clinics, and it was largely with a view to studying these methods and their results that I undertook my pilgrimage.

I feel that I have been amply repaid, as I have seen excellent results following the most various methods; and, while I fully realize that a continuous study of a long series of cases is quite necessary for a full understanding of the merits of any given method as compared with others, one may obtain many valuable ideas and suggestions by actual observation of the methods of others in the operating room and in after treatment.

Opinions differ greatly as to the choice between simple and combined extraction, but the larger number of those whom I saw on the continent prefer the simple extraction when it is practicable, and a number are quite insistent in its favor.

The broad conjunctival flap I find is almost universally employed, both by the advocates of simple and combined extraction, and, while I have obtained excellent results by avoiding a flap of conjunctiva and consider it a somewhat troublesome feature on account of the hemorrhage, I am convinced that displacement of the edges of the wound with its consequent delayed healing, astigmatism, and danger of prolapse is less to be feared when a good flap is made. I am quite sure that less care is required in the management of the cases after operation by this method.

The method of dealing with the anterior capsule differs greatly with different operators, but I found quite a large number using the sharp toothed forceps and removing the central portion, or in some instances where an iridectomy is performed, taking away as large a portion as is practicable. This latter method seems quite popular in England and it is claimed to greatly reduce the number of cases requiring secondary operation.

In only a few instances did I find operators employing the method I have preferred, namely cutting a quadrangular plaque in the anterior capsule with the cystotome and removing it, if practicable, by irrigation. In fact, I have yet to find an advocate of irrigation of the anterior chamber for the removal of cortex. Indeed, a considerable number seem to pay little attention to cortex and depend upon absorption.

The opening of the unoperated eye within a few hours, or at most a few days, after operation is so common as to almost be the rule, and, while a great variety of methods of after dressing seem to yield good results, I saw none that seemed so effective as Professor Snellen's.

In the enormous clinic in Utrecht, conducted by the elder and younger Professor Snellen, simple extraction is the rule, and during the last two years there has been only one prolapse of the iris after extraction and that was in a case in which an iridectomy had been performed. This, when it is considered that the unoperated eye is opened within a few hours after operation, is an excellent showing, and I am inclined to attribute it to the method of dressing and the care exercised in the after treatment.

The ocular fossa is packed with a number (five, six, or more) of small pledgets of absorbent cotton saturated with 1-5,000 bichloride of mercury or boracic acid solution and over this is laid a thin patch of protective rubber which is held in position by three narrow strips of rubber plaster from the brow obliquely to the cheek. On this is laid one of Snellen's aluminum shields which is held in position by two broad strips of rubber plaster.

For a few hours a bandage is also placed over the fellow eye. This dressing is renewed once or, in many instances, twice a day, and it was astonishing to see how free from irritation, injection and secretion these eyes were.

A similar dressing, but without the packing with bichloride, absorbent cotton was used in large number of cases seen in one of the Vienna hospitals, but in this case the amount of secretion along the edges of the lids was considerable and the eyes were often injected and somewhat irritable.

A CASE OF RUPTURED BLADDER.

REPORTED BY M. B. M'GONIGLE, M. D., ASHLEY, O.

Mr. F., age 35, farmer, previous health good, on the evening of May 22, while in an intoxicated condition from drinking beer, engaged in a boxing contest. During the bout he slipped and fell, his opponent falling upon him. He was unable to rise, and his appearance created alarm. I was called to see him immediately after the accident. He was semi-conscious, had considerable shock and a very rapid pulse. He rallied in a few minutes, vomited twice, after which he was able to get up and assume an erect position. He complained of acute pain in the lower portion of his abdomen. Palpation developed some tenderness, but no physical signs of injury to the bladder were present. He was taken to his home five miles distant. During the night he complained of considerable pain and expressed a frequent desire to urinate, but was unable to pass any urine.

On the morning of the 23rd, his family physician was called, who catheterized him, withdrawing two ounces of urine mixed with blood. He reported pulse and temperature normal. The pain in his abdomen gradually grew worse and required large doses of morphine to relieve him. He passed no urine during the day and the following night. His physician was again called early in the morning of the 24th. He again catheterized the patient without result. I was called in consultation at 10 a. m. of the same date, the second day after the injury. His pulse was then 80, temperature 99:8, very restless and delirious at intervals. His abdomen was greatly distended with complete flatness on percussion below the umbilicus. We thought perhaps there might be a blood clot in the bladder and a solution of bicarbonate of soda was injected. A small portion of the injected fluid returned colored with blood. The injection increased the patient's distress. We then decided there was laceration of the bladder; that the dullness was due to infiltration of urine in the cellular tissues and that an operation was necessary.

Dr. W. J. Means, of Columbus, was sent for and reached the patient about 7 o'clock p. m. on the 24th. The patient was then in a grave condition. His abdomen was swollen enormously, pulse 130, temperature 102:4 and very delirious. Large doses of morphine had been given him to relieve the pain. A guarded prognosis was given by the doctor. The patient was prepared for the operation as quickly as possible. Anesthesia was produced with great difficulty. Artificial respiration had to be resorted to quite frequently. The only light obtainable was an ordinary table lamp, which was held by a friend of the patient. An incision above the symphysis pubes about three inches long in the median line was made. When the cellular tissues were reached, a large amount of fluid escaped. The odor of urine was marked, although it was mixed with blood. As a guide to the opening in the bladder a sound was introduced through the urethra. With the index finger in the incision the sound was felt and the laceration located. It was in the anterior wall, extra peritoneal, longitudinal, and about one and one half inches in length. Owing to the extensive infiltration of the tissues, the wound was not closed. The margins of the lacerated bladder were attached to the fascia with silk sutures. A large catheter was inserted through the urethra into the bladder and carried well up into the incision. Several openings were made in the portion extending through the bladder. In this way thorough drainage was maintained both of the tissues and bladder. The angles of the wound were closed, a gauze drainage placed in the incision and proper dressings applied.

The patient rallied from the operation and had an uneventful convalescence. The suprapubic opening closed up in a few weeks, since which time he has had no trouble.

At the time of the accident the patient's bladder was evidently full of urine. He stated that he had not urinated for several hours. There were no diagnostic signs of laceration following the accident for some time. The injury should have been suspected, however, at the first catheterization. The man's life was seriously jeopardized by the delay in making a diagnosis and resorting to surgical measures.

Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting January 5, 1903.

F. W. BLAKE, President. J. D. DUNHAM, Secretary.

The paper of the evening was on

"CEREBRAL LOCALIZATION,"

by Dr. D. N. Kinsman.

DISCUSSION.

Hendrixson, C. S. Hamilton and Stillman. The following committees were appointed; Executive, Drs. D. L. Moore, J. F. Baldwin, J. E. Brown, President and Secretary; Public Health, Drs. Kinsman, Probst, Fraker; Legislation, Dr. N. R. Coleman. Dr. Clemdennin McCoy was elected to membership.

Regular Meeting January 19, 1903.

Dr. A. Timberman reported a case of injury to the eye followed by enucleation. The case was discussed by Drs. Rogers, Kinsman and Clark. Dr. J. F. Baldwin reported an operative case.

"EXTENSION OF OTITIC SUPPERATION"

was the title of a paper read by Dr. J. E. Brown; discussion by Drs. Stillmann and Rogers.

FRANKLIN COUNTY MEDICAL SOCIETY.

Regular Meeting, Tuesday Evening, Dec. 9, 1902.

D. N. KINSMAN, President. C. S. MEANS, Secretary.

"MIGRAINE"

was the subject of a paper by Dr. D. N. Kinsman.

Discussion by Drs. C. S. Means, Fraker, Wright, McGavran, Waters, Means.

Regular Meeting, Tuesday Evening, Jan. 13, 1903.

"THE AFTER-TREATMENT OF PELVIC SURGERY IN FEMALES"

was the subject of a paper by Dr. C. M. Taylor.

Practical Therapeutics.

INCONTINENCE OF URINE:—

R Sodii benzoatis,
Sodii salicylatis, āā gr. xx.
Ext. belladonnæ fl; gtt. ii.
Aq. cinnamoni, fl oz. iiss—M.

Signa. A teaspoonful four times daily.

HERMATURIA:—

R Tr. feri chloridi, m xxx.
Tr. digitalis, m xv.
Aq. mentharæ pip, fl. oz. iss—M.

Signa. Take one dose every four hours.—Aitken.

FOR LOCOMOTOR ATAXIA:—

R Argentii nitratis, gr. x.
Confectionis rosæ, gr. xx.
Misce et fiat pilulam, no. xl.

Signa. One pill three times a day.—Da Costa.

ERYSIPELAS:—

R Creolin, dr. i.
Iodoformi, oz ss.
Lanolini, dr. x—M.
Ft. unguentum.

Signa. Apply with camel's hair brush and cover with gutta-percha.—Koch.

EPILEPSY:—

R Ammon. bromidi., dr. vi.
Acetanilid, dr i.
Lig. potass. arsenitis, fl. dr. i.
Aq. mentharæ pip, q. s. ad. oz. vi—M.

Signa. Teaspoonful in water night and morning.—Wood.

THE COLUMBUS MEDICAL JOURNAL.

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FEBRUARY, 1903.

Editorial.

IMMUNITY FROM SMALLPOX AFFORDED BY VACCINATION.

To physicians in general it is unnecessary "to quote figures" or multiply arguments in support of vaccination. The few who remain unconvinced have either ignored the records and statistics of history or are incapable of weighing evidence. To oppose vaccination is to assail preventive medicine and invite disease, suffering and death. In the light of history "any person who opposes vaccination," says Professor Osler, "ought to be allowed nowhere outside of an insane asylum." Evidence of the immunity afforded by vaccination is abundant and conclusive on every hand. Fortunately here in Columbus, as in many other parts of the state, the frequent admonitions of our state board of health and local health officers, have been fairly well heeded and smallpox has been measurably restrained. Of the 17 deaths from smallpox from January 1, 1902, to February 8, 1903, not one was that of a vaccinated person. Of the 241 cases for the same period 67 had evidence of previous vaccination, but in many of these the evidence was not at all conclusive that the vaccination had been successful, and many of them, vaccinated in childhood, had never been re-vaccinated. Of the five persons caring for the smallpox cases, three are protected only by successful vaccination. During the present epidemic of smallpox in Ohio which began in April, 1898, there have been reported to the state board 669 cases and five deaths for 1898; 1756 cases and 32 deaths for 1899; 3229 cases and 44 deaths for 1900; 4880 cases and 58 deaths for 1901; and 5587 cases with 342 deaths for 1902. Of these, 1276 cases occurred during the winter months, that is, January, February and December of 1902 with 53 deaths for the same time.

During the epidemic eight physicians were reported as having contracted smallpox, and as far as could be learned, in each case the physician had failed to protect himself by recent vaccination. Of 3734 cases tabulated by the secretary of the state board, 3269 were unvaccinated, seven had had previous attack, and 465 had been previously vaccinated. Of these Dr. Probst says: "The evidence as to former successful vaccination was simply the existence of a vaccination scar, with the statement of the patient. It is quite probable that some of those reported as having been successfully vaccinated did not have a true vaccination."

Similar results are revealed in the study of the disease wherever it occurs. Of 16 deaths reported a few years ago in Wheeling, all of them were unvaccinated persons. In those who had been vaccinated there was no serious case, while in those recently vaccinated, no case was seen. Second attacks occurred in a number of persons. Dr. Jepson, who reported the cases, believes that recent vaccination is a better protection than previous attacks of the disease. General compulsory vaccination would blot out smallpox in civil life as it has done in the German army.

The city is to be congratulated on the decision of the court that the board of education has the power to exclude unvaccinated children from the public schools. With successful vaccination of all children, smallpox would be extremely rare, and with successful revaccination of adults, it would be practically unknown.

HEALING OF NERVES.

In a study of the "exact process whereby peripheral nerves, after they have been divided, become reunited," Ballance and Stewart performed about 150 experiments on animals. The conclusions reached by them are at variance with those held by the majority of observers who have investigated the problem of nerve regeneration.

These investigaters declare their adherence to the theory of peripheral nerve regeneration; that is that the axis cylinders, medullary and neurolemma sheaths are developed from proliferation of the preëxisting cells of the degenerated nerve fibers. This is the theory held by Eichhorst, who attributes the restoration of continuity to the growth and coalescence of central and peripheral nerve fibrils.

"The process of regeneration, as observed in the proximal and distal segments of a severed nerve are, according to these observers, essentially the same; the differences observed are 'differences of degree and not of kind,' since, as has been stated, regeneration of the axis cylinders and medullary sheaths occurs in the distal segment of a severed but unsutured nerve, but the newly formed nerve fibers do not attain their full maturity until they are joined to those of the proximal end.."

Small colonies of axis cylinders are seen in the proximal end at a considerable distance below and independent of the most outlying extremities of the unbroken axis cylinders by the end of the second week after section. In the distal segment, the regeneration begins somewhat later, and reproduces the nerve elements as "separate threads alongside the elongated nuclei of the neurolemma." The new axis cylinders increase steadily in length and in diameter. Their ends finally fuse together and at the end of eight weeks they form long bands, whose central fibers unite with the axis cylinders of the proximal segment.

Huber, in reviewing the report of their work, says the evidence presented by these investigators is not sufficient to warrant an overthrow of the prevalent theory that the newly formed axis cylinders are outgrowths from the central axis cylinders and that the structural elements of the peripheral segment do not contribute to the axis cylinder formation. The subject is one of practical importance to all who are interested in nerve suture and repair.

THERAPEUTICS OF DIOSCORIDES.

On occasion we are all interested in whatever pertains to the history of medicine, and especially to the lives and services of the most eminent representatives of the profession. Few men in the remote past rendered a more signal service to the healing art than did the Greek physician, Dioscorides Pedanius (A. D. 40-90). He was an independent investigator and voluminous writer. His system of therapeutics was based upon the humoral pathology, and probably did much to sustain for so long a time the credibility of that doctrine. His exhaustive work, *De Materia Medica,* was a recognized authority for about fifteen centuries, and it is still so regarded among the Turks and Moors. He described about four hundred plants, many of which are in some form still used as medicines. They include althea, castor oil, salep, tragacantha, amylum, whey, honey sugar, oxgall, alum, aloes, fern, galls, oak bark, roses, cinnamon, vinegar, soda, borax, lime, mustard, quicksilver, savine, blue vitriol, cantharides, iron, rennet, chamomile, mandragora, gentian, horehound, milfoil, cardamons, caraway, coriander, fennel, melissa, pepper, rosemary, rue, sage, turpentine, opium, bittersweet, castor, aconite, hemlock, hyoscyamus, sulphur, olive oil, rhubarb, colocynth, hellebore, eleterium, garlic, myrrh, pix, squill, carrot seed, parsley root, colchicum, malefern, pomgranate, wormwood and arsenic.

In his work on Therapeutics, Stelle, from whom we have quoted freely, has given many interesting things in reference to the therapeutics of the ancients .

Althea, according to Dioscorides, is a resolvent bringing abscesses to a head, and encouraging the healing process. "Its name was given in reference to its many virtues." The boiled roots were recommended as pessaries in uterine hemorrhage, the decoction for retained placenta, the juice with wine for dysentery, diarrhea and as a diuretic and the oil for toothache.

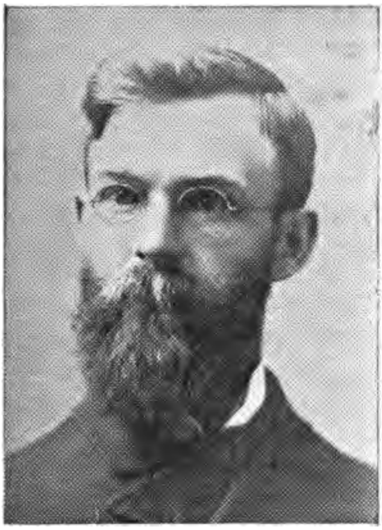
He described method for making starch, which was used for the inflammation of eyes, ulcers, dry throat and hemoptysis. Bitter almonds were recommended as amemagogue diuretic and hemostatic. "Six almonds given before supper, prevent intoxication." Ichthyocolla was recommended for headache, skin eruptions and removing wrinkles.

Honey, he says, is detersive and aperient, used with alum for ulcers and wounds, with rock salt for ear ache, tinnitus, destruction of lice, mouthwash, gargle for tonsillitis, best used in spray, to soften and elongate prepuce; some honey poisonous, as bees feed on certain toxic flowers. He gives three varieties of alum, and says it is healing and astringent, represses fungous granulations, stanches hemorrhages, hardens spongy gums; with honey it cures ulcers of the mouth; useful in otorrhea, "and dissolved in an infusion of cabbage or with honey, is useful in various cutaneous affections." It is of service to reduce the swelling of gums, tonsils and soft palate, and is applied with honey to mouth, ears and genital organs. Lead, he says, was used as a medicine to smooth scars; worm in the groin, it checks venereal diseases and nocturnal paltutions. Calcined (oxid of) lead is astringent, repressive and healing; used for inflammation of eyes, excrescences, wounds, etc. He described nut galls the same as Hippocrates, as astringent. All oak barks are astringent; he refers to the inner bark as the seat of virtues; decoction used in hemoptysis and dysentery; pessaries were made of them to restrain uterine hemorrhage. Roses are cooling and astringent; he describes a mode of extracting the juice to be used for inflamed eyes; dried leaves with wine for eyes, mouth, ears and arms; powdered leaves in intertrigo, infusion of rosebuds confines bowels, useful in hemoptysis. Vinegar is refrigerant and astringent, agreeing with the stomach, suppressing hemorrhages. It counteracts inflammation in wounds, restrains prolapsus of rectum and fortifies spongy gums; is used for unhealthy and corrosive ulcers; with honey it removes discoloration of skin. Its vapors cure dropsy, deafness and ringing in ears, destroys insects, heals pannus; used locally for stings of insects. With salt and water, warm, to be drank, to produce emesis in poisoning from opium, conium and mushrooms. Quiets chronic coughs, aggravates acute ones. Chamomile is calefacient and attenuant, emmenogogue, diuretic; expels fetus and calculi; used in jaundice and fevers. Horehound leaves and juice with honey serviceable in asthma, coughs or consumption, as an expectorant. It promotes discharge of the placenta, and lochia, favors conception, an antidote to venomous bites, irritates the kidneys and bladder; detergent and astringent for ulcers. He was first to describe opium. "It allays pain, induces sleep, promotes menstruation and is useful in chronic coughs. In overdoses it occasions a deep and terrible lethargy; externally it is used with oil to allay pain and headache; introduced it relieves earache and is a narcotic." Mandragora, he recommended as a sedative, anesthetic and narcotic.

Obituary.

J. C. LAWRENCE, M. D.

Dr. James Cordus Lawrence, President of the Columbus Academy of Medicine, died at his residence in this city Tuesday morning, Dcember 23. He was born at Roscoe, Coshocton county, December 13, 1859, the son of Rev. Oman L. Lawrence, of the Methodist Episcopal conference. Dr. Lawrence attended the public schools, Baldwin University at Berea and the Columbus Medical College, graduating from the latter institution in 1889. He began the practice of medicine here in 1890.



J. C. LAWRENCE.

Before entering the medical college he was for several years a teacher in the schools of Northern Ohio, being unusually successful as principal of South Euclid schools.

In 1893 he was married to Miss Julia Todd Hyer, then a teacher in the city schools. She died in 1899, leaving a son, James Orlando Lawrence, now 8 years of age. The members of the family besides his father and son, are two brothers, Dr. F. F. Lawrence, of this city, and Edward Lawrence, of Canton, and a sister, Mrs. Luella W. Yeiter, of Tacoma, Mo. Funeral services were held on Christmas day, the Rev. Edward Hageman, of Norwalk, a classmate of Dr. Lawrence at Baldwin, conducting the services. The body was taken to Carlisle, Pa., the old home of the Hyer family, and buried beside that of his wife.

Soon after graduating he began the practice of medicine in this city, where he practiced continuously up to a few months before his death, December 23, 1902.

At the organization of the Ohio Medical University Dr. Lawrence was Professor of Visceral Anatomy.

The deceased was a member of the Broad Street M. E. church of this city, a member of Champion Lodge, K. of P.; the Columbus Academy of Medicine, Ohio State Medical Society, the American Medical Association and examiner for the Metropolitan Life Insurance Company. For two successive terms he was president of the Columbus Academy of Medicine, the only president thus honored. During his illness the Academy sent to him a formal expression of its sympathy and hope for his restoration to health.

Notwithstanding his failing health Dr. Lawrence found time to make valuable contributions to medical literature. Among articles read before local medical societies and published were the following: "Appendicitis, With Report of a Case" (COLUMBUS MEDICAL JOURNAL August, 1892); "Prevention of Tubercular Consumption" (idem October, 1895); "Some Observations in the Southwest on the Climatic Effects on Consumption" (idem December, 1896); "Synovites of the Knee" (idem December, 1900); "Bronchitis and Broncho-Pneumonia—Treatment in Children" (idem March, 1901); annual address as President of the Columbus Academy of Medicine on "The Proposed Revision of the Constitution and By-Laws of the Ohio State Medical Society to Make Them Conform to the Reorganization of the American Medical Association" (idem January, 1902).

By the purity of his life, gentlemanly demeanor, ethical practice and devotion to the best interests of the community and the profession, Dr. Lawrence endeared himself to all who enjoyed his acquaintance.

The following resolution, prepared by Drs. J. H. Upham, W. K. Rogers, C. M. Taylor, was adopted by the Columbus Academy of Medicine:

"In the death of Dr. J. C. Lawrence on Dec. 22, 1902, the medical profession of Columbus, and the Academy of Medicine especially, sustained a deeply-felt loss, which it is their privilege to share with many of the friends, as well as the family, of this physician, whose courage and fortitude through a long illness, and whose professional ability and sterling character have endeared him to all with whom he has been associated.

"As president of the society, his services were of unusual value. And the faithfulness and sincerity with which he discharged the duties of his office were such as to confer upon him the unique distinction of a unanimous re-election as executive officer.

"It is resolved, therefore, that this memorial to his name be embodied in the minutes of the society and a copy be engrossed and presented to his son.

Medical News Notes.

Dr. J. D. Dunham has taken an office in the McLene.

Dr. Otto Arnold left last week for California and Arizona.

Dr. C. M. Taylor and wife are spending a month on the Pacific coast.

Dr. T. E. Courtright has removed his office from 217 to 183 East State street. The McLene building.

The next meeting of the American Medical Association will be held at New Orleans, May 5 to 8 inclusive.

Dr. Jacques Loeb, of the University of Chicago, has accepted the chair of physiology in the University of California.

The spring meeting of the Medical Society of the Missouri Valley will be held in Council Bluffs, Iowa, on Thursday and Friday, March 19 and 20.

Mrs. Hempy Sargis, of East Gay street, left Friday for Philadelphia, where she will join her husband, Dr. A. Y. Sargis. After a few weeks in Philadelphia they will sail for their new home in Uroomiah, Persia.

Dr. J. E. Hikes, of East Main street, sailed last Wednesday from New York, on the steamer Philadelphia. After spending several days in London, England, he will sail on the Orient and Pacific, for Madrad, India.

Dr. Scott Fulton, formerly of Washington C. H., Ohio, who has spent the last three years in the stomach clinics of Professor Fenton B. Turck at the Post-Graduate Hospital of Chicago, will limit his practice to diseases of the gastro-intestinal tract. Office, 183 East State street, Columbus, Ohio.

Enno Sander prize of $100. The essayist securing first place will receive a gold medal of the value of one hundred dollars. The essayist securing first honorable mention will receive a life membership in the association, of the value of fifty dollars. Subject for 1902-1903, "The Differential Diagnosis of Typhoid Fever in Its Earliest Stages. For conditions of the competition address Dr. Robert Allen Blood, President, or Dr. James Evelyn Pilcher, Secretary, Carlisle, Pa. Board of Award: Brigadier General Austin Flint, New York; Colonel Calvin De Witt, U. S. army; Lieutenant Colonel Victor C. Vaughan, U. S. Vols.

XIV INTERNATIONAL MEDICAL CONGRESS AT MADRID.—It is believed that a considerable number of American physicians will attend the fourteenth International Medical Congress, to be held in Madrid, April 23-30, 1903. As all those who wish to attend the congress have a common objective point, it is thought that they can be associated to advantage in one or more excursion parties. By such association better accommodations can be secured and at a considerable reduction in price. Additional security will also be attained, as parts of the trip which include comparatively unfrequented routes of travel, will be under the charge of a traveling conductor who is thoroughly, conversant with the language and customs of the countries visited. As there will doubtless be some divergence as to choice of routes depending on individual inclination and previous opportunities of foreign travel, several returning routes have been selected, the itineraries of which, although separate from a portion of the journey, have been arranged that the principal points are visited together. The party will sail from New York City, on April 11, on the twin-ocean steamer, "Princess Irene," North German Lloyd, direct to Gibraltar. Tickets for the round trip, including hotel and sight-seeing, $265, $375 and $550, according to the tour selected. It is important that all who contemplate taking this trip should register at once, so that reservations for hotel in Madrid may be satisfactorily arranged. Final arrangements will be in the hands of the well-known conductors, Thos. Cook & Sons, which insures perfect and complete service in all details. Full information and copies of itinerary may be obtained by addressing the undersigned: W. W. Keen, Walter Wyman, Nicholas Senn, C. A. L. Reed, Howard A. Kelly, A. Vanderveer, John B. Murphy, Joseph Mathews, Robt. T. Morris, Lucien Howe, Chas. H. Hughes, W. F. Southard, Ramon Guiteras, 75 West Fifty-fifth street, New York City; Chas. Wood Fassett, Krug Park Place, St. Joseph, Mo.

W. B. Saunders & Co. desire to announce to the profession that they have established a branch of their business in New York. Dr. Reed B. Granger, for many years managing editor of the New York Medical Journal, together with a representative who is thoroughly familiar with the methods of the Philadelphia house, will be connected with this new branch; and Mr. W. B. Saunders personally will divide his time between New York and Philadelphia. Their offices are on the seventeenth floor of the Fuller building, bounded by Broad, Fifth avenue, Twenty-third and Twenty-second streets. Physicians visiting New York are cordially invited to make these conveniently appointed offices their headquarters, where they can receive and answer their correspondence, obtain an interesting paroramic view of the city from a most favorable point, and where they will always be courteously welcomed.

Recent Medical Books.

How to Succeed in the Practice of Medicine. By Joseph McDowell Mathews, M. D., LL. D., President of the American Medical Association, 1898-99; Author of "Mathews' Diseases of the Rectum"; ex-President Mississippi Valley Medical Association, Kentucky State Medical Society, American Proctologic Society, Louisville Surgical Society, Louisville Clinical Society; President Kentucky State Board of Health; Honorary Fellow American Association Obstetricians and Gynecologists; Professor of Surgery Hospital Medical College; late Professor of Surgery, Kentucky School of Medicine, etc. Louisville. John P. Morton & Co. 1902.

Professor Mathews has given to the profession a book both interesting and useful, written primarily for the beginners in the practice of medicine. The subject has been so broadened and enlarged that physicians of experience may read it with profit.

He has shown in its interesting pages exactly how to succeed in a much broader sense and in fields of citizenship, science and literature. There are a few chapters that should be studied by the members of the profession, whether young or old. One is on ethics. It is remarkably brief in text, but contains volumes in thought. It is covered by the following sentence: "Do unto others as you would have others do unto you," and if you are ever in doubt about the proper course to pursue, consult the code of ethics of the American Medical Association. Another is "The Business Side of It." This chapter is well worth the price of the book. An attempt to give many good thoughts said in this chapter in a brief review would be manifestly unfair to the author. It deserves reading and re-reading. **

Typhoid Fever. By J. T. Moore, M. D., M.C.P.S., Professor of Theory and Practice of Medicine, Medical Department of Hamline University, Minneapolis, Minn. Pages, 159. Price, $1.00, net. G. P. Engelhard & Co., Chicago. 1902.

This monograph is largely a compilation of the conclusions of modern investigations of the subject of typhoid fever, covering its history and etiology, histology and pathology, symptomatology, complications and sequelæ, diagnosis and prognosis and treatment. There is also a certain amount of original work done by the author that adds value to the conclusions drawn from the work of others. **

A MANUAL OF DISSECTION AND PRACTICAL ANATOMY FOUNDED ON GRAY AND GERRISH. By William T. Eckley, M. D., Professor of Anatomy, and Corinne B. Eckley, Demonstrator of Anatomy in the Medical and Dental Departments of the University of Illinois. In one octavo volume of 400 pages, illustrated with 220 engravings, 116 of which are colored. Cloth, $3.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

The present work has a two-fold purpose; first, to provide the student with a detailed guide for dissection, and second, to meet the requirements of the physician or surgeon who may desire to review the anatomy of any region. The arrangement of the volume is rational; first, the landmarks are given, then the integumentary incisions, and lastly, the descriptions and relations of succeeding anatomical entities. To increase its usefulness the volume has been developed along the lines of regional anatomy, and it is believed that the careful and complete treatment of the various areas will adapt it to the needs of the surgeon and the post-mortem pathologist.

The illustrations are good. Colors have been freely used, and the engravings are so large that in most instances the names of the parts have been printed directly upon them, thus furnishing the utmost aid as well as maximum convenience to the student.

It is convenient in size and will no doubt prove a very desirable reference book for the dissecting room and the surgeon.

THE TREATMENT OF FRACTURES. By Charles Locke Scudder, M. D., Assistant in Clinical and Operative Surgery, Harvard University Medical School; Surgeon to the Out-Patient Department, Massachusetts General Hospital. Third edition, B. Saunders & Co., Philadelphia, Pa. 1902. Price, polished buckram, $4.50, net; half morocco, $5.50.

This book is intended to serve as a guide to the practitioner and student in the treatment of fractures of bone. The author speaks with knowledge obtained from a broad experience in the management of fractures and a close and critical observation of his case. The Rontgen ray has been used to excellent advantage in illustrating the various forms of fractures. The methods of treatment are also illustrated in so far as it is possible to do so. One of the striking features is the mechanical simplicity advocated in the use of appliances. He insists that an exact knowledge of anatomy combined with accurate observation is necessary for the diagnosis and treatment of fractures.

The classical terms of simple and compound fractures are set aside and the expressions "closed" and "open" are used. His argument, that closed and open express definitely the conditions referring to the freedom from and the liability to bacterial infection, is logical.

The work produces favorable impressions by the general manner in which the subject is treated. Its descriptions are decisive and clear, and the treatment is a practical demonstration of the subject. It is one among the best books published.

DISEASES OF THE BRONCHI. By Dr. F. A. Hoffman, of Leipsic. Diseases of the Pleura. By Dr. O. Rosenbach, of Berlin. Pneumonia. By Dr. F. Aufrecht, of Magdeburg. Edited, with additions, by John H. Musser, M. D., Professor of Clinical Medicine, University of Pennsylvania. Handsome octavo volume of 1030 pages, illustrated, including 7 full-page colored lithographic plates. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $5, net; half morocco, $6, net.

This, the fourth volume to be issued of Saunder's American edition of Nothnagel's Practice, fulfills all expectations. The eminent authors of the valuable monographs which comprise this volume had, by their breadth of learning, their exhaustive research, and extensive practical experience, made their essays almost complete as originally written. Nevertheless the author in the light of recent research has made numerous valuable additions, so that the American edition represents the present state of our knowledge on the subjects under discussion. Among other things, these additions include new matter on the anatomy and physiology of the bronchi; on foreign bodies in the tubes; on the pathology, bacteriology, and treatment of bronchitis, and the recent researches on bronchiectasis and on eosinophilia in asthma.

Much new matter has been incorporated into the section on pneumonia, including the recent work of Hutchinson and others on the blood and urine in that disease. In the Pleurisy section will be found an account of the latest bacteriologic studies, and references to the work of Morse on the Leucocytes in Pleurisy, to that of Williams and others on the X-ray Diagnosis, and to Litten Phenomenon. The work in every particular is thoroughly up-to-date, and no criticism is possible but praise.

REGIONAL MINOR SURGERY. By George Gray Van Schaick, M. D, Attending Surgeon French Hospital, N. Y., etc., etc. Bound in cloth. Heavy book paper, 226 pages. Profusely illustrated. Price $1.50. International Journal of Surgery Co., N. Y.

This work occupies an unique position. Although devoted to minor surgical technics, the same amount of care has been bestowed upon the treatment of each individual condition that is in text-books accorded only to subjects of major surgery. The aim throughout has been to provide the general practitioner with a book that will afford him such practical information as he can utilize in his routine surgical work. No space has been taken up by theoretical discussions, each subject being treated in a clear and concise manner, yet omitting no detail of the least importance. While in many surgical affections a number of methods are applicable, the writer has selected only those which in an exhaustive extensive experience of nearly twenty years in hospital and private practice have proved most satisfactory. The book is profusely illustrated with original sketches. **

REYNOLDS & NEWELL'S PRACTICAL MIDWIFERY. A Manual of Obstetrics for Students and Physicians, by Edward Reynolds, M. D., Assistant in Obstetrics, etc., and Franklin S. Newell, M. D., Assistant in Obstetrics and Gynecology in Harvard University Medical School, Boston. In one octavo volume of 531 pages, with 253 engravings, and 3 full-page colored plates. Cloth, $3.75 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1902.

In presenting this volume to the profession, the author excuses the introduction of another book on the plea of the favorable reception accorded to an earlier volume, which aimed only at rendering the technical details of obstetrical practice accessable to students, and was, therefore, intended to be merely an accessory to the more extended text books together with the opinion of the publishers, that a more extended work, based on the same lines, would fill the wants in the literature of the subject.

This volume covers succinctly the directions which are necessary to the management of every case of gestation, labor and the convalescence therefrom, supplying a single clear line of treatment and avoids the presentation of a mass of material, obsolete or modern, through which a student must work out a conception of his subject. The portion devoted to obstetric surgery and its indications particularly will be found to possess interest and practicability.

SURGICAL ANATOMY AND OPERATIVE SURGERY. For Students and Practitioners. By John J. McGrath, M. D., Professor of Surgical Anatomy and Operative Surgery at the New York Post-Graduate Medical School, Visiting Surgeon to the Harlam Hospital and Assistant Visiting Surgeon to the Columbus Hospital, New York. Illustrated with 227 illustrations, including colors and half-tones. Pages xiv—559. Royal Octavo, Extra cloth, $4.00, net; sheep or half-Russia, $5.00, net; delivered. Philadelphia, F. A. Davis Company, Publishers, 1914-16 Cherry street.

The author has departed in a measure from the usual lines in the works on operative surgery and surgical anatomy by combining in a practical manner both subjects. He argues that a knowledge of the one is essential to the proper study of the other. There is no question about the last proposition. The matter of combining the two subjects in one, however, may meet with some criticism. Diagrammatic drawings have been used largely for the purpose of illustrating, because, in the judgment of the author, they are more satisfactory for teaching. The reputation of the author as a teacher in post-graduate work gives the book a reputation that will command the attention of the profession at large. The contents of the book are divided into ten chapters. The first one is devoted to General Conditions, such as Anaesthesia, Division of Tissues, Hemorrhages, Sutures, etc. The other chapters are devoted to the various regions of the body, such as the Head and Face, Neck and Tongue, Thorax, Abdomen and Back, Rectum, Urinary System, Upper Extremity and Lower Extremity.

The work seems to be practical in its teaching and will, no doubt be favorably received by the profession. **

ATLAS AND EPITOME OF DISEASES OF THE MOUTH, PHARYNX, AND NOSE. By Dr. L. Grunwald, of Munich. From the Second Revised and Enlarged German Edition. Edited, with additions, by James E. Newcomb, M. D., Instructor in Laryngology, Cornell University Medical School; Attending Laryngologist to the Roosevelt Hospital, Out-Patient Department. With 102 illustrations on 42 colored lithographic plates, 41 text-cuts, and 219 pages of text. Philadelphia and London: W. B. Saunders & Co., 1903. Cloth, $3.00, net.

In designing this atlas, the author has kept constantly in mind the needs of both student and practitioner, and as far as possible, typical cases of the various diseases have been selected. The illustrations are numerous and exceedingly well executed, portraying the conditions so strikingly that their study is almost equal to examination of the actual specimens. The work, besides being an excellent atlas and epitome of the diseases of the mouth, pharynx and nose, serves also as a text book on the anatomy and physiology of these organs. Indeed, we wonder how the author has encompassed so much within such a limited space. We heartily commend the work as the best we have seen. **

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS, comprising ten volumes on the year's progress in medicine and surgery, issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. III, The Eye, Ear, Nose and Throat, edited by Casey A. Wood, C. M., M. D.; Albert H. Andrews, M. D.; T. Melville Hardie, A. M., M. D., December, 1902. The Year Book Publishers, 40 Dearborn Street, Chicago, Ill. Price of this Vol. $1.50. Price of the series $7.50.

These volumes have already met with a hearty reception at the hands of the profession, and therefore this one needs no especial introduction. They were published primarily for the general practitioner, the arrangement in several volumes being of special value to him.

There have been material advances in many departments of ophthalmology during the last year, all of which are noted in this volume. The same may be said of the ear and of the nose and throat. These advances are noted and properly mentioned in the text. **

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS, comprising ten volumes on the year's progress in medicine and surgery, issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. II. General Surgery, Edited by John B. Murphy, M. D., Professor of Surgery, Northwestern University Medical School. November, 1902. Chicago, The Year Book Publishers. Price of this volume $2.00. Price of the series $7.50.

This volume will be of especial interest to surgeons. Murphy's reputation as a surgeon and writer is sufficient to interest the profession in anything he may publish. He emphasizes the growing practice of surgeons to follow definite lines of procedure for definite pathologic conditions at fixed stages of the disease. He believes it has tended to better results in the treatment of many of the more common surgical lesions, as appendicitis, sholelithiasis, prostatic hypertrophy, cerebral apoplexy, and gastrointestinal neoplasms. He believes the procastination is still the cause of the greatest mortality in surgical diseases.

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THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS, comprising ten volumes on the year's progress in medicine and surgery, issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. X. Skin and Veneral Diseases, Nervous and Mental Diseases, edited by W. L. Baum, M. D.; Hugh T. Patrick, M. D. September, 1902. Chicago, The Year Book Publishers. Price of this volume $1.25. Price of the series $7.50.

This is a timly work on Skin, Veneral, Nervous and Mental Diseases. It notes the advances that have been made during the last year in these various departments. The articles on Hysteria, Neurasthenia and Epilepsy are valuable.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS, comprising ten volumes on the year's progress in medicine and surgery, issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. I. General Medicine, edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, M. D., Professor of Medicine, Chicago Clinical School. October, 1902. Chicago, The Year Book Publishers. Price of this volume $1.50. Price of the series $7.50.

No subject is of more interest to the general practitioner than that of "General Medicine." This book has been materially enlarged in various departments and two new departments have been added: Suggestive Therapeutics, edited by Daniel R. Brower, M. D., and New Words, by Dr. Wm. Healy. It is impossible in a short review to point out the advances noted in the last year. A general perusal will be necessary to appreciate the many good things it contains. **

BOOK ON THE PHYSICIAN HIMSELF and things that concern his reputation and success, by D. W. Cathell, M. D. The Twentieth Century Edition, being the eleventh edition, revised and enlarged by the author and his son, William T. Cathell, A. M., M. D. Pages 411. Royal Octavo, extra cloth, $2.50, net, delivered. Philadelphia, F. A. Davis Company, Publishers, 1914-1916 Cherry street.

The previous editions of this book have met with numerous commendations. The present one has been thoroughly revised and is named the "Twentieth Century Edition." A careful perusal of its pages cannot help being beneficial to the reader. With the modern tendency to professional amity, the lessons taught in this work may be of great advantage in surmounting the obstacles and to decide a multitude of dilemmas that will arise. **

THE STORY OF A LIVING TEMPLE. A study of the human body. By Frederick M. Rossiter, B. S., M. D., and Mary Henry Rossiter, A. M. Published by Fleming H. Revell Company, Chicago, Ill., 1902.

The author states that this book was suggested by experience both in teaching and professional work. Beginning with "Your body a temple" to the closing paragraph, the text is natural and spontaneous. Although it is written largely for the young, yet it appeals to every age. The style is clear, forceful and unaffected. The wonderful story of the human dwelling is told with a rare sympathetic charm and power. The prosaic words "Anatomy," "Physiology" and "Hygiene" never enter your mind. The reader is unconsciously transported, for the time being, to a marvelous building, with living walls, strange and curious rooms, a living fountain, myriads of marvelous, living workers—a veritable fairy palace of wonders. It is an interesting book.

A POCKET TEXT-BOOK OF ANATOMY. By Wm. H. Rockwell, Jr., M. D., Assistant Demonstrator of Anatomy, College of Physicians, Columbia University, New York. In one 12mo volume of 600 pages, with 70 illustrations. Lea's Series of Pocket Text-Books. Edited by Bern B. Gallaudet, M. D. Cloth, $2.25, net;' Limp Leather, $2.75, net. Lea Brothers & Co., Philadelphia and New York.

The author disclaims any thought or design to replace, by this manual, the large text-books on anatomy. He has endeavored to present the subject in a brief and readily excessive form. Dr. Rockwell's long experience in teaching anatomy has acquainted him with the exact needs of a student and the difficulties they meet. This manual embodies an earnest endeavor to furnish a safe and competent guide to the student as well as a convenient and trustworthy reference hand-book for the physician who may wish to refresh his memory.

PROGRESSIVE MEDICINE, VOL. IV, DECEMBER, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 412 pages, 54 illustrations. Per volume, $2.50, by express prepaid. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

The concluding volume of 1902 begins with a remarkably thorough consideration of the most recent advances in the diagnosis and the treatment of Diseases of the Digestive Tract, including the liver, pancreas and peritoreum, by Dr. Einhorn. Dr. Bloodgood's section on Anesthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics is a thorough discussion of all these important topics, accompanied by a large number of valuable illustrations. Dr. William T. Belfield writes upon Genito-Urinary Diseases, giving especial attention to the much-discussed treatment of prostatic hypertrophy. Dr. John Rose Bradford discusses Diseases of the Kidneys. The section on Physiology is by Dr. Brubaker. Dr. Harrington's chapter on Hygiene relates the results attained by the practical applications of recent investigations into the cause and prevention of such diseases as yellow fever and malaria. The Therapeutic Referendum presents all the facts regarding the most recent remedies and methods of treatment. This feature alone would suffice to make the volume indispensable to the up-to-date physician.

THE COLUMBUS MEDICAL JOURNAL.

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SOME OF THE VETERAN MEDICAL TEACHERS OF AMERICA.

BY ISAAC KAY, M. D., SPRINGFIELD, O.

Owing to the intimate connection which has always existed between the professional corps of the American medical colleges and our standard medical literature, and owing to the vast influence for good, which these industrious and learned men have always exerted in the world, by way of teaching and practising the healing art, I have conceived the notion of selecting a few names of such persons as have merited special attention on account of the long duration of their services, as teachers in the medical colleges of the land. I have noticed closely, for more than half a century, the immense number of standard medical works issued by the publishers of such books, and can confidently say that ninety-nine one hundredths of all these thousands of volumes on medicine, surgery and the cognate sciences have been written by the professors, adjunct professors or stated lecturers of medical colleges.

To give even the names of all these worthies, young and old, would occupy much more space than would be practicable in this article, and therefore I must necessarily confine myself to that more restricted number of persons who have acquired a wide reputation on account of their protracted as well as efficient labors in certain distinctive lines of medical teaching. I shall attempt nothing like a brief biographical sketch of those whom I shall note as belonging to this distinguished class of men, but shall in many instances restrict myself to their names and the dates of their active services. My statement of facts will be based upon the knowledge derived from a recent correspondence with the deans, registrars or secretaries of nearly all the medical colleges of North America, more than fifty in number. I shall class the various items of information, thus received, under the headings of the different colleges with which the names of the veteran professors designated have been directly connected. The list, however, is not intended to be exhaustive. My sources of information have been entirely too limited. It will be only an approximation to the whole truth.

Of course, it would be orderly and fitting to commerce with Philadelphia as the seat of the older medical institutions in this country. The medical department of the University of Pennsylvania was really commenced and finally established from a nucleus, originating as early as the year 1730, when Dr. Thomas Cadwallader commenced delivering a course of medical lectures in Philadelphia. He was followed by Dr. William Hunter, who taught for twenty years; and still later by Dr. William Shippen, who commenced lecturing in 1762 and kept it up until 1765. During the last named year, John Morgan, a member of the first class that was graduated in the liberal arts from the college at Philadelphia in 1757, and who had received his medical education from abroad, and had been a pupil of William Cullen at Edinburgh, and having returned to this country, proposed the addition of a medical school to his Alma Mater. This proposition was favorably received by the trustees of the college, and by eminent teachers of medicine in England, and a medical department was inaugurated by Dr. John Morgan's election, May 2, 1765, as professor of the theory and practice of physic, while on September 23, of the same year, Dr. William Shippen, jr., was made professor of anatomy, surgery and midwifery, and also clinical lecturer in the Pennsylvania Hospital. At that time a good academic education was a prerequisite to the degree of Bachelor of Medicine.

In January, 1768, the medical faculty was enlarged by the addition of Dr. Adam Kuhn, as professor of botany, and in July, 1769, Dr. Benjamin Rush was appointed professor of chemistry. Thus the faculty was made up of the most celebrated, scientific men of that day, men, whose names, ever since, have been inseparably connected with the history of medical teaching in this country. Philadelphia then, and for many years afterward, was the undisputed center of medical education in America. Nor has she fallen behind, in this respect, since. Here was established the first medical school; the first hospital and the first dispensary in our country.

Drs. Morgan, Shippen and Rush, all three, became attached to the continental army, as medical officers, during the revolutionary war, and the last named became identified with the civil history of the country in those stirring times, having served a term in congress, and being one of the signers of the Declaration of Independence. Then from the year 1792 to 1805 inclusive, we note the familiar and historic names of Casper Wistar, Adam Kuhn, Benjamin Rush, James Hutchinson, Samuel P. Griffiths and Benjamin Smith Barton, as constituting the faculty of this eminent and time-honored medical institution. In the year 1805 was first established a separate chair of surgery, to which was appointed the world-renowned Dr. Phillip Syng Physic, a pupil of the immortal John Hunter of London. Dr. Physic was a brilliant lecturer and an able writer for the medical journals, and was related to the university as professor for twenty-six years. Of all the above named professors who had ever been connected with the medical department of the University of Pennsylvania, the one doing longest service was Dr. Benjamin Rush, who was made professor of chemistry in 1769; of theory and practice 1789; of institutes and clinical medicine in 1792; of institutes and practice united in 1797, and he thus taught until the time of his death, in 1813, a period of 44 years, less three months.

In the teaching of surgery and anatomy, the most memorable names were those of William Gibson, William E. Horner, Joseph Leidy and D. Hayes Agnew. William Gibson was professor of surgery in the University of Pennsylvania for 36 years, after having served for many years in a similar position at the University of Maryland, making in all a service as teacher of more than 40 years. After Gibson, Henry H. Smith filled the chair of surgery for 14 years, after having lectured for a like term in the College of Baltimore, in all about 28 years. Then followed D. Hayes Agnew, from 1871 to 1889, a popular teacher and eminent author of high class works in surgery. As professors of obstetrics, the most conspicuous names were those of William P. Dewees and Hugh L. Hodge. Dr. Dewees wrote one of the first of two American systematic works on his distinctive branch of medicine, besides other able books, and was professor in the University of Pennsylvania for 30 years. Dr. Hodge was professor of obstetrics from 1835 to 1863—28 years—and was also a distinguished author, and he was followed by Dr. R. A. F. Penrose, who served for 25 years as active, and now for 14 years as emeritus professor, a term in all of 39 years, the longest of all his coadjutors now living. Nathaniel Chapman was professor of materia medica from 1813 to 1816, then of theory and practice till 1850—34 years.

Dr. Joseph Leidy, the distinguished naturalist and scholar, was elected as professor of anatomy in 1853, and served in that position for forty years. The celebrated Nathaniel Chapman, at first professor of obstetrics, was afterwards made professor of materia medica and finally became professor of theory and practice of medicine with an active service of over forty years. George B. Wood was 20 years professor of chemistry and materia medica and 10 years professor of practice, and was the author of many volumes of standard medical works, in all was a public teacher of medicine for 35 years. Alfred Stille filled the chair of practice from 1864 to 1884, and was a man and author of great distinction in the profession. Then the chair of practice was filled by the extraordinarily brilliant lecturer and author, William Pepper, for 14 years.

Other names might be mentioned in connection with this great school of medicine, but the plan of this paper will not permit. The reasons for taking up so much space with this part of my subject are two-fold: First, the fact that the above names have, for generations, been household names to almost all American physicians, and second, that the school with which they were so long a time identified was the cradle, as it were, of American medicine. I am indebted to Dr. Charles W. Dulles, of Philadelphia, as my principal source of information in making out the foregoing notes.

Then turning our attention towards Jefferson Medical College, Philadelphia, in search of veteran medical teachers, we have a rich and large field opened up to our view. Such names as Robley Dunglison, Joseph Pancoast, Charles D. Meigs, Franklin Bache, Samuel D. Gross, John K. Mitchell, Ellerslie Wallace, Howard Rand, Jacob M. DeCosta, Henry C. Chapman, John H. Brinton, William W. Keene, Roberts Barthelow, H. A. Hare, Theophilus Parvin, T. G. Wormley, formerly connected with Starling Medical College, and others are presented to our notice.

Nearly all, if not quite all, of these eminent professors and authors have been public teachers of medicine for more than 20 years. And it is to be borne in mind, that 20 years is a long time for such arduous services. I shall not take the time to particularize in regard to all the names in this last mentioned list, but cannot refrain from noting a few of them, as follows: Robley Dunglison, 1798-1869, was born in England, practiced a short while in London, then came to America, and in 1824 was appointed professor of medicine in the University of Virginia. Three years later he filled the chair of materia medica in the University of Maryland, and in 1836 was elected to the professorship of theory and practice of Jefferson Medical College and remained in that position until the time of his death, in 1869, after a public service of 45 years, as a teacher of medicine. He was the author of numerous medical textbooks upon various branches of medical science, including a dictionary, which has been a standard authority for more than half a century. Joseph Pancoast commenced lecturing on surgery and anatomy in connection with Jefferson Medical College in 1831; was made professor of anatomy in 1861 and retained that position until the time of his death. Dr. John K. Mitchell became professor of chemistry in the Philadelphia Medical Institute in the year 1826 and in 1833 took the same chair in the Franklin Institute and finally, in 1841, became professor of theory and practice in Jefferson Medical college, where he continued until 1857, with an entire professional career of 31 years. Charles D. Meigs was a public teacher of obstetrics and diseases of women and children for 22 years, commencing in 1841.

In the medical history of New York City, the first person to attract our attention is Dr. David Hosack, who was appointed professor of botany in the Columbia College in the year 1795, and professor of materia medica in 1797, with the addition of midwifery to his chair in 1807. Dr. Hosack has always been renowned as one of New York City's pioneer medical teachers. Dr. John W. Francis was appointed professor of the institutes of medicine and materia medica in the College of Physicians and Surgeons, in 1816. From the year 1819, he was professor of obstetrics, upon which subject he lectured for 40 years. Dr. Valentine Mott was called to the chair of surgery, in Columbia Medical College, in 1809, and remained until that institution was merged into the College of Physicians and Surgeons, in 1813. He withdrew from the last named school in 1826, and with Drs. Hosack, Francis and Mitchell founded Rutger's Medical School, but subsequently returned to the College of Physicians and Surgeons, and continued as a lecturer there until quite advanced in life, having taught surgery for more than 41 years. Dr. Willard Parker was at first appointed professor of anatomy in the Vermont Medical School in 1830. During the same year he was appointed professor of anatomy in the Berkshire Medical College, Massachusetts, where in 1833 he became professor of surgery. In 1836 he accepted the chair of surgery in that medical college. In 1839, he was appointed professor of surgery in the College of Physicians and Surgeons of New York. He had a career of about 40 years as a medical teacher. Since Dr. Parker's time, there have been quite a number of eminent medical teachers in New York City whose terms of service have exceeded 30 years, but I have no opportunity or ability of naming them now.

In Harvard University, Dr. John C. Warren became assistant professor of surgery in 1806, and was full professor from 1815 to 1847, and then emeritus professor till the time of his death in 1856, after an active career as teacher of 41 years, and of nine years as emeritus—51 years in all. He was one of the founders, and for many years editor of the Boston Medical and Surgical Journal; had much to do in establishing the Massachusetts General Hospital, and was one of the first to use ether as an anesthetic in surgery. As to the other veteran teachers in the medical department of Harvard University, I could ascertain but little more at present, than that Professor White was appointed lecturer on chemistry, in 1863, and later became professor of dermatology, and has just been made professor emeritus, after a career as teacher of nearly 40 years. Professor Cheever was appointed assistant in the chair of anatomy in 1866, but shortly after was transferred to surgery, where he lectured for many years, and he is now retired as emeritus professor, after having held the honors of his position for 36 years.

At the Bowdoin Medical School, of Maine, Professor Cleveland Parker occupied the chair of chemistry from 1826 to 1858—32 years; Professor Frederick H. Gerrish filled the chair of materia medica from 1872 to 1882 and from the last date to the present he has been professor of anatomy 30 years, and Dr. Alfred Mitchell has been professor of obstetrics and internal medicine ever since 1869—34 years. The remaining professors have taught less than 20 years.

In the University of Vermont, Professor A. F. A. King has been lecturing on obstetrics and diseases of women and children ever since 1872—31 years; S. W. Thayer, M. D., LL.D., has been professor of anatomy and physiology and of surgery from 1853 to 1872, and he lectured on clinics while acting as emeritus, until the time of his death, in 1882, a period of 29 years. Walter Carpenter was professor of materia medica, 1853-7; theory and practice, 1857-81, an active service of 28 years. He died in 1892.

At the medical department of Laval University, Quebec, Canada (French), established in 1852, Dr. Charles Eusebe Lemireux held successively the chairs of practical anatomy, general physiology, descriptive anatomy and external clinics, from the foundation of the college to the time of his death in 1899—46 years. Dr. Laurent Catellier, at different times held the chairs of anatomy, external pathology, both general and clinical, from 1870 to the present—32 years—and Professor L. Y. A. Linard occupied successively the chairs of descriptive and practical anatomy, physiology, general pathology, ophthalmology and otology from 1863 to the present—40 years.

Professors William H. Welch and William Osler are veteran teachers, the former beginning in 1879 as Professor of Pathological Anatomy and General Pathology in Bellevue Hospital Medical College and at present Professor of Pathology, Johns Hopkins University. Professor Osler began in 1874 as Professor of the Institutes of Medicine, McGill University, Montreal, taught Clinical Medicine in the University of Pennsylvania, 1884-89, now Professor of the Principles and Practice of Medicine, Johns Hopkins University.

In regard to the past history of Albany Medical College, New York, it should be said that Alden March, M. D., LL. D., was professor of surgery from its beginning, in 1839, to the time of his death, in 1869—30 years—and Dr. Albert Vander Veer was his successor in the same chair from 1869 to the present time —34 years—and is the oldest medical teacher now connected with that college.

At the medical department of Syracuse University, New York, established in 1872, Dr. John Van Duyn has been professor of anatomy and subsequently of surgery, with a service from the beginning of the institution till the present time—30 years. Dr. H. D. Didama has been associated with this college also from the beginning, 20 years as professor of the science and art of medicine, and 12 years as dean, with some clinical teachings—30 years—and is still teaching, aged 79 years. Dr. John Van Duyn has been professor in this college for 30 years, first of anatomy and subsequently of surgery, which last chair he still holds.

The medical department of the University of Buffalo was established in 1846, and Matthew D. Mann, A. M., M. D., professor of obstetrics and gynecology, has retained his position the longest of any professor connected with this institution, who is now living, having been installed in 1882—20 years ago. Since 1846, there have been 32 professors of that college. Those who have served 20 years or more are as follows: James P. White, obstetrics, 1846-1881, 35 years; George Hadley, chemistry and pharmacy, 1846-1878, 32 years; Charles A. Lee, materia medica, 1846-1870, 24 years; Edward M. Moore, surgery, 1852-1882, 30 years; Thomas F. Rochester, principles and practice of medicine, 1853-1887, 34 years; William H. Mason, physiology, 1861-1886, 25 years, and Matthew D. Mann, 1882-1902, 20 years. The remaining 25 professors, and among them were men of great distinction, such as Drs. Austin Flint, senior and junior, Frank Hamilton, John C. Dalton, Roswell Park and others, served as teachers in the Buffalo School for nine years each, on an average.

It might be just and proper to add that Professors Flint, Hamilton and Dalton transferred their distinguished labors to the medical colleges of the east, where, beside continuing their work as lecturers, they became the authors of standard medical works upon the various subjects pertaining to their special lines of teaching. They have all rounded out their professional lives with services lasting from twenty to thirty years.

Of all the states located in the great Mississippi valley, Kentucky was the pioneer in regard to medical education. It was in the summer of 1817, that Drs. B.W. Dudley, Daniel Drake, W. H. Richardson, James Overton and James Blythe were elected professors in the medical department of Transylvania University. It was a faculty of great ability, and subsequently became of national distinction. Such men as Daniel Drake, B. W. Dudley, Charles Caldwell and their associates made Lexington the medical emporium of the western states. Cincinnati, St. Louis and New Orleans had not, as yet, attained any celebrity as places either of letters or of business. Finally, however, this state of things became reversed. To maintain Kentucky's high position in the scale of medical education, it was found necessary to change the location of her Transylvania School to Louisville. By the active efforts of the above named worthies and other like spirits, and the kindly co-operation of Louisville capitalists, the old medical school was removed to the last named city. A new organization was affected with a faculty consisting of Charles Caldwell, professor institutes; Esten Cook, of theory and practice; L. P. Yandell, of chemistry; Henry Miller, of obstetrics, and Joshua Flint, in the chair of anatomy and surgery. In 1845, this medical institution was merged into the University of Louisville, and the additional names of Professors Elisha Bartlett, of practice; Benjamin Silliman, of Chemistry; Samuel D. Gross, of surgery; Lewis Rogers, of materia medica, and David W. Yandell, appeared in the body of instructors, many of whom having served from 20 to 30 years. These celebrities each became a power in the ranks of medical teachers in this country. Some of them were extraordinarily fine lecturers. I well remember having heard Professor D. W. Yandell deliver a beautiful and forcible extemporaneous address, or what might properly be styled an oration, on the subject of medical education, more than half a century ago, before the American Medical Association. I recollect that he and Professor M. B. Wright, of Cincinnati, were the most elegant and eloquent speakers in that august body. We cannot here give the exact terms of these last named veteran public teachers' official service, but will close our notice of the Kentucky schools by stating, that among their living teachers of medicine, Professor J. M. Bodine has held his chair for the longest time. He has delivered 40 full courses in anatomy and has conducted the clinics of diseases of the eye, ear, nose and throat, for a great number of years, and is now half way through with his forty-first year in anatmoy, and he has held the office of dean longer than any other man ever did in any medical college in the United States.

The member of the medical faculty of the University of Michigan who served the longest was Dr. Corydon L. Ford, professor of anatomy. He had taught several years in the Buffalo school before he came to the University of Michigan, where he continued his labors in the chair of anatomy during all the regular annual sessions, besides lecturing during the spring sessions at Long Island Medical college, at the school formerly at Castleton, Vermont, at Pittsfield, Mass., and Bowdoin Medical College. Thus Professor Ford kept up a strenuous life as medical teacher from the year 1854 to the time of his death, in 1894, a period of 40 years.

The first veteran medical teacher to claim our attention at Chicago would be Dr. N. S. Davis. During the years 1847 and 1848 he was demonstrator of anatomy, and lecturer on medical jurisprudence in the College of Physicians and Surgeons of New York City; in 1849 he accepted a professorship in Rush Medical College, Chicago, serving ten years in the chair of practice; he then changed for the same chair in the Chicago Medical College until 1897, a service of 55 years, including the two years as demonstrator of anatomy, which should be counted. There has been no other member of the profession in Chicago, either living or dead, who has ever been engaged in medical instruction for so long a time as Dr. N. S. Davis, and he is still living to bless the world. In fact I find no record equal to this in the medical history of the United States. Dr. Edward Andrews, professor of surgery at the Northwestern University, still holds the same chair during the entire period of 43 years. Professor Nicholas Senn has taught surgery for more than 25 years. I am not able to give a full list of Chicago's veteran teachers, and must let it go at that.

In the Medical College of Keokuk, Professor J. C. Hughes, Sr., was a member of the faculty when the institution was founded in 1849 as dean, and professor of surgery, till the time of his death in 1887, 32 years; Dr. George F. Jenkins has lectured on surgery in this college since 1878, 24 years, and other professors have served from 10 to 16 and 18 years.

In St. Louis, Mo., we find that in the medical department of Washington University, Dr. Abram Lisson became professor of chemistry and pharmacy, in 1843, and served until 1892, almost 50 years. He died in 1891. Dr. John B. Johnson became professor of clinical medicine and pathalogical anatomy in the same college, 1853-1870; professor of the principles and practice of medicine from 1870 to 1893; professor of the principles of medicine from 1893 to 1899, and is now emeritus professor, having served actively for 46 years. Also in the same school, Elisha Hall Gregory, after serving 12 years as demonstrator of anatomy, became adjunct professor of surgery in 1864, and filled that position until 1870, when he was made the professor of principles and practice of surgery and clinical surgery, where he has remained to date. Thus Dr. Gregory has taught as professor for 38 years, and as demonstrator (which is one of the most active and useful forms of medical teaching) for 12 years, making a grand total of 50 years.

At San Francisco, Cal., Dr. L. C. Lane has the longest record as a medical teacher. In 1862 he became professor of anatomy in the Medical College of the Pacific, and lectured there until the last named institution was consolidated with Toland Medical College, where he continued to occupy the same chair until 1872, when he was elected professor of surgery. Dr. Lane then built, largely at his own expense, a fine college edifice, and the name of the institution was changed to Cooper Medical College. So he was engaged continuously as professor, in what was virtually the same college, from 1862 until February, 1902, when he died, having given a faithful service of 40 years. Dr. S. M. Mouser tells me that there were several professors in San Francisco who have taught for terms ranging between 20 and 30 years, but I could not get their names without much more time and tedious delay.

In the Columbian University, Washington, D. C., established in 1821, Dr. A. F. A. King was professor of obstetrics and Dr. Thompson, professor of surgery, both commencing their work at the same time, 1865, and have each served for 37 years, but part of their time subsequent to 1872 was spent as professor in the University of Vermont.

I have received the following information in regard to the oldest medical teachers identified with the Medical College of Virginia at Richmond:

"Dr. James B. McCaw was elected to the chair of chemistry and pharmacy in this college July 8, 1858. He had served in the capacity of an adjunct professor previous to that time. He held this chair until June 23, 1869, when he was elected professor of practice of medicine, which chair he resigned May 6, 1885.

He was dean of the faculty from January 7, 1871, until the close of the session of 1882-83. In 1889 he was appointed a member of the board of visitors of this college by the governor of the state, and since 1897 has been president of that body. He has been connected with this college for 44 years.

"Dr. John S. Wellford was elected to the chair of materia medica and therapeutics on April 8, 1868, which he filled until December 15, 1880, when he was elected professor of diseases of women and children, which chair he resigned July 11, 1893. In his letter of resignation he made the following statement: 'For 39 years—14 as a "visitor" and 25 as a professor— * * * have I been connected with the institution.' His resignation as an active professor was accepted by the board who, at the same meeting, however, elected him 'emeritus professor of diseases of women and children,' which position he now holds, and he has therefore been officially connected with the college since 1854, or for nearly half a century.

"The third professor in the Richmond Medical College that I wish to mention is Dr. William H. Taylor, at present state chemist,,and coroner of the city of Richmond. Dr. Taylor says that he first began teaching in this college as an adjunct professor of chemistry and pharmacy in 1868. On February 17, 1875, he was elected professor of chemistry and pharmacy. In 1886 his title was changed to professor of chemistry, which chair he still fills, after a career of 34 years."

The veteran medical teachers connected with the University of Tennessee were as follows: Paul F. Eve, A. M., M. D., LL.D., was professor of surgery in the University of Nashville from 1853 to 1876, and in the University of Tennessee to the time of his death, in 1877, embracing a period as teacher of 24 years; William K. Bowling, M. D., LL. D., professor of theory and practice of medicine in the University of Nashville from 1853 to 1880, and then professor of the same chair in the University of Tennessee until his death in 1886, making in all 49 years.

The nucleus from which the Medical College of Georgia has developed was incorporated in 1822, but in 1833, what is now known as the Georgia Medical College was fully established from it. Dr. Milton Anthony, the founder of this college, was the greatest medical man in all the south during his time, being very prominent as an editor and medical professor, but died in

1839, comparatively early in life. Dr. Joseph A. Eve, a pupil of Dr. Anthony's, was elected to the chair of materia medica in 1833, and a few years later to the chair of obstetrics, which he ably filled for 53 years, thus having served as professor of that college for nearly 56 years. Dr. Louis D. Dugas filled the chair of anatomy and physiology in the Medical College of Georgia at the time of its organization, but was elected in 1855 as professor of surgery, and was connected with the institution as teacher for about 33 years. Dr. Louis D. Ford filled the chair of principles and practice of medicine from 1833 until 1882—49 years.

At the medical college of the state of South Carolina, Dr. Francis L. Parker was professor of anatomy commencing in 1871, after having been demonstrator of anatomy since 1866, and is now professor of anatomy and lecturer on diseases of the eye and ear, an entire period, as he states, of 43 years.

Going still further south for a record of veteran medical teachers, we come to the medical department of Tulane University, at New Orleans, and find that among those who have died are the names of Professor A. H. Senas, of obstetrics, who served from 1834 to 1865, 29 years; Professor Thomas Hunt, for 20 years from 1834; Professor James Jones, theory and practice, from 1836 to 1873, 37 years; Professor J. L. Riddell, chemistry, from 1838 to 1865, 27 years; Professor Warren Stone, surgery, from 1835 to 1872, inclusive, 38 years. He died October 10, 1873, the most famous surgeon that New Orleans has ever had. Of the living veteran professors in this institution we have E. S. Lewis, professor of obstetrics from 1877 to the present, 25 years; Joseph Jones, professor of chemistry from 1869 to 1892, 23 years; S. E. Challie, anatomy and pathology, 1869 to 1902, 33 years.

Among the medical colleges of Cincinnati we note first, the veteran Professor Daniel Drake, whose biography would fill a large book. But we must be content with saying, that this eminent medical teacher, whose eventful life became more thoroughly identified with Cincinnati than with any other city, commenced his professional career in the west, in 1817, by lecturing one year in the Transylvania Medical school at Lexington, Ky. In 1818, Dr. Drake helped to found the Medical College of Ohio, at Cincinnati, and remained with that institution as professor until 1823, when he returned to the Transylvania School and lectured there for awhile, and afterward in several of the Philadelphia medical colleges; then at Louisville, and again at Cincinnati. He died in 1852, after an active and diversified experience as a medical professor lasting for 35 years. Dr. Drake was no less noted also as a writer of able papers and books on medical subjects and in general literature. Reuben D. Mussey, after having held several professorships in Dartmouth and other New England medical colleges, was made professor of surgery in the Ohio Medical College at Cincinnati in 1838, a position which he held until 1852, when he took the same chair in the Miami Medical College and lectured there until he resigned in 1860, and then removed to Boston, where he died June 28, 1866, after a useful career as teacher, lasting in all for more than 30 years. Of the living medical professors in Cincinnati, we have occasion to note in connection with the Ohio Medical College, Professor P. S. Connor, in the chair of surgery, ever since 1866, 36 years; Professor W. W. Seely, ophthalmology since 1866, 36 years, and T. A. Reamy, professor of obstetrics and cognate medical branches, who has had an experience as follows: A professorship in the Cincinnati College of Medicine and Surgery, from 1858-1861; in Starling Medical College, Cólumbus, from 1863 to 1871, and then in the Medical College of Ohio, from 1871 to 1902, making in all an active service as medical teacher of 44 years. At Miami Medical College, Dr. Wm. H. Taylor has been serving as professor of obstetrics and cognate branches of medicine since 1866, 36 years, and I wish to note that among the faculty of the late Cincinnati College of Medicine and Surgery Drs. B. S. Lawson, J. A. Thacker, D. D. Bramble, M. B. Wright, William Dawson, James Graham and D. S. Young have each taught for more than 20 years, and R. C. S. Reed from 1861 to 1892, 30 years.

At the Starling Medical College, Columbus, O., established in 1847, he original faculty, consisting of professors John Butterfield, of practice; Richard L. Howard, of surgery; Samuel M. Smith, of materia medica; Henry H. Childs, of obstetrics; Frederick Merrick, of chemistry; Jesse P. Judkins, of anatomy, and Francis Carter, of physiology, all have passed away from earth. I knew them all, but cannot now give the exact duration of their services respectively, but think that they each taught more than 20 years, some of them perhaps 30. A number of the since deceased professors, including J. W. Hamilton, surgery; John B. Dawson, practice; T. G. Wormley, chemistry; H. C. Pierce, obstetrics; David Halderman, surgery, and others had taught more than 20 years, some of them perhaps more than 30 years. Of those living I will commence by naming Professor Starling Loving, the Nestor of them all in Columbus, and in Ohio, who, after having taught one year as demonstrator of anatomy, was transferred to the chair of materia medica in 1856, which position he held until 1875, when he succeeded S. M. Smith as teacher of practical medicine. This chair he has ever since held, making in all an incumbency as public medical teacher for the term of about 47 years. Professors E. B. Fullerton, Otto Frankenberg, C. C. Howard, D. Todd Gilliam, T. C. Hoover and W. D. Hamilton have each taught 20 or more years.

Relative to the Ohio Medical University, it may be observed that Professor D. N. Kinsman began to lecture at Starling Medical College in 1872, and continued there for three years; then commenced teaching in the Columbus Medical College, where he lectured 16 years; then again in Starling for five years longer, and finally he has been teaching in the Ohio Medical University for more than six years, making in all thirty-one years. Professor A. M. Bleile, formerly connected with Starling Medical College, has been teaching physiology in medical colleges for 25 years. He is also professor of physiology at the Ohio State University. Professor J. U. Barnhill taught nine years in Columbus Medical College and 11 in the Ohio Medical University, a continuous service of 20 years. Professor J. Medbery has been teaching anatomy for 18 years, including a term in the Columbus Medical College. Professor G. M. Waters has also been teaching for about an equal period.

In order to embrace Ohio more completely in my lists we will state, that contrary to my plan thus far, I will name the Medical College of Toledo, although it has never had a lecturer of 20 years' standing. William J. Gillette, professor of gynecology, and W. A. Dickey, of practice of medicine, each held his present position for 16 years.

Concerning the veteran medical teachers of Cleveland, O., I cannot now speak with much certainty. I had written, many weeks ago, to four prominent medical college men there, from whom I expected some information on this subject, but could get nothing definite from any of them. I shall, therefore, have to state in a general way from my own knowledge, that during a period of 30 or 40 years, I had been in the habit of meeting about five of the Cleveland professors in the Ohio State Medical Society who might be safely ranked as veteran teachers of from 20 to 30 years' standing in the past, namely, Drs. J. Dalameter, Jared P. Kirtland, X. C. Scott, H. A. Ackley, H. J. Herrick and Gustav Weber. There may have been more than these, and doubtless were, but I have not sufficient data to state positively, nor does this article profess to be an exhaustive one on this subject of veteran medical teachers of America.

Although this article has already perhaps occupied too much of THE JOURNAL'S space, I would crave to close with the following summary relative to the above named veteran medical teachers of America, whom we know as having held their professional chairs for 30 years and more as follows: Thirty years, Wm. P. Dewees, of Philadelphia; Frederick Gerrish, of Bowdoin; Alden March, Albany; John Van Duyn, Syracuse; Edward M. Moore, Buffalo; 31 years, John K. Mitchell, Philadelphia; D. N. Kinsman, Columbus; R. D. Mussey, Cincinnati; R. C. S. Reed, Cincinnati; 32 years, Cleveland Parker, Bowdoin; L. Y. Lynard, Quebec; J. C. Hughes, Keokuk; 33 years, Alfred Mitchell, Bowdoin; Albert Vander Veer, Albany; Louis Dugas, N. O.; S. E. Callie, N. O.; 34 years, Nathaniel Chapman, Philadelphia; Thomas F. Rochester, Buffalo; William H. Taylor, Richmond; 35 years, George B. Wood, Philadelphia; James P. White, Buffalo; Daniel Drake, Cincinnati; 36 years, Professor Cheever, Harvard; W. W. Seely, Cincinnati; P. S. Connor and Wm. H. Taylor, all of Cincinnati; 37 years, James Jones, N. O.; A. F. King, Vermont; 39 years, R. A. Penrose, Philadelphia, including 12 years as emeritus; 40 years, Wm. Gibson, Philadelphia; Professor White, Harvard; J. W. Francis, New York City; Corydon L. Ford, Michigan; L. C. Lane, San Francisco; 41 years, Joseph Leidy, Philadelphia; Valentine Mott, New York; John W. Hamilton, Columbus, O.; John S. Wellford, Richmond; 43 years, T. G. Wormley, Philadelphia; Edward Andrews, Chicago; Francis M. Parker, Charleston; 44 years, Benjamin Rush, Philadelphia; James P. McGraw, Richmond; 45 years, Robley Dunglison, Philadelphia; 46 years, Chas. Lemireaux, Quebec; John B. Johnson, St. Louis; 47 years, Starling Loving, Columbus, O. (now living); 49 years, Louis D. Ford, Georgia; Abram Lisson, St. Louis; Wm. K. Bowling, Nashville; 50 years, Elisha Hall Gregory, St. Louis; 51 years, John C. Warren, Harvard (nine years emeritus); 55 years, Joseph A. Eve, Georgia Medical College; 56 years, N. S. Davis, of Chicago.

The memory of these men above enumerated would be worthy of a towering marble shaft to be erected at our national capital by an appreciative people.

THE ABSORPTION TREATMENT OF CATARACT AND ITS EFFECTS ON THE EYE.*

BY JOHN W. WRIGHT, A. M., M. D.,

Professor of Ophthalmology, Ohio Medical University; Ophthalmologist to Protestant Hospital, Columbus, Ohio.

The possession of a remedy, whether to be applied locally to the eye or administered internally, that would absorb the cataractous lens or cause it to become clear, would be a desideratum whose value would exceed that of the alchemists' royal secret of transmuting the baser metals into gold. The dread of a surgical operation is such that both the profession and the laity eagerly grasp at every innovation that promises to relieve the patient of the thrilling pang of the thought of the surgeon's knife.

There are two reasons for the sentiment referred to:

One is the great number of important discoveries that have been made in the medical profession in recent times. This has had a tendency of placing the profession itself constantly on the *qui vive*; ready to accept almost anything at any moment.

The other reason is that charlatans take advantage of this and by exploiting the so-called marvelous effects of a new discovery, whose field of usefulness has not been fully outlined, or their own pretended discovery, ply upon the credulous to a grievous extent. For these reasons it is readily seen how an unscrupulous proprietory medicine company may exploit the virtues of a so-called plant, indigenous, of course, to some far-off country, "whose juice, if extracted at the time of its fullest vigor, when its active principle is most potent, has the properties of promoting the absorption of all corneal and vitreous opacities, being so positively curative in both lenticular and capsular cataract, that it has rendered the use of the surgeon's knife no longer necessary."

When reputable physicians are attracted to the alluring properties of such a remedy, the unsophisticated should not be denounced to any great extent at heeding the many glowing advertisements of so-called skilled oculists who cure cataract and all ocular opacities with their "absorption" and "resolvent" treatments.

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* Read before the Franklin County Medical Society, February 24th, 1903.

My experience with patients who have used the so-called "resolvent" and "absorption" treatments induces me to contribute this article.

More than a year ago my attention was directed to the condition of the eyes of those upon whom I had operated for cataract, who had previously used these treatments referred to, and in May, 1902, I directed the following communication to the editor of The Ophthalmic Record, which was published in the June number: "I am desirous to know if you, or any of the readers of The Ophthalmic Record, have had any experience in operating for cataract on patients who have received what is known as the 'absorption' treatment for that affection.

"I have operated on several such cases with varied success, and it has just come to my mind recently that what is known as the 'absorption' or 'resolvent' treatment is very injurious to the integrity of an eye which must later undergo an operation for the extraction of the lens. In all of the cases which have come under my observation the cornea was flabby, having lost its normal firmness and the parts divided by the incision would not usually coapt until the aqueous was replaced.

"In the case of a gentleman, 68 years of age, who had closed a ten months' continuous treatment for 'absorption' about a month previous, which was operated five days ago, the cornea was unusually thin and so fragile that it seemed rather to tear before the knife, not through force, but that the parts had lost their natural cohesion and organization, as if in a state of disintegration. After rupturing the lens-capsule I attempted in the usual manner to remove the lens, and was making but the slightest pressure when there was a terrible gush of vitreous, which appeared very fluid. I then attempted to remove the lens with the scoop, but failed on account of a further loss of the vitreous. I now desisted in further attempts to remove the lens, instilled a few drops of a 2 per cent. solution of atropine in the eye, closed the lids and applied a loose dressing.

"Six hours later I again examined the eye, and found the aqueous chamber refilled, the corneal incision coapted and the lens well in the pupillary space, which was very much dilated.

"I now thoroughly cocainized the eye, after which the lens was removed with the wire loop with very little loss of vitreous, but the cornea, as before, being unable to support itself, dropped down in its center. The eye was loosely dressed as on the former occasion, and when examined the following morning the aqueous humor was replaced and the cornea had assumed its normal shape. The wound was nicely coapted. A week has now elapsed, and, barring some capsular matter in the pupillary space, the patient bids fair for a speedy recovery.

"I can now account for at least seven patients upon whom I have operated for cataract, who had previously taken the 'absorption' treatment. I have probably had more such patients, for I had never thought of making inquiry whether a patient had taken the so-called 'treatment,' but I call to mind that an unusual number of my cataract patients in the last two years have had the flabby condition of the cornea above mentioned, and that it was not unusual to lose vitreous, but regarded them as coincidences. I learn from other oculists in this locality that they have had similar experience with their cataract patients, but, like myself, gave the matter little thought.

"I am informed by physicians that many patients throughout the country have been and are now taking this 'treatment' for all forms of eye affections, and, what is more surprising, that not a few physicians are prescribing it for their patients. I have heretofore not regarded its effects in any manner but indifferently, as we all do regarding such 'infallible' nostrums. I am now satisfied that this 'treatment,' whatever it may be, is very injurious, and that physicians should advise patients against its use.

"How the remedy acts to produce the results herein mentioned I do not attempt to explain at present, for I am not cognizant of its nature, but I am positive that it is injurious to those patients who, after its constant use for a considerable time, are obliged to undergo an operation."

Immediately after the publication of the above communication I received letters from several oculists from different parts of the country who have had the same experience as I have had with these cases. Among them Professor Dean, of the State University of Iowa, wrote me as follows: "During the last three months I operated on three senile cataracts upon which the 'absorption' treatment had been used. With two of the cases I have had great difficulty. In both cases the cornea collapsed. The greatest trouble was due to the fact that the lens adhered to the iris, although there was no synechia that could be observed before the extraction of the lens. In both cases the anterior surface of the lens was covered with spots of pigment. The spoon had to be resorted to in both cases."

Dr. Walter L. Pyle, of Philadelphia, in a paper on "The Disappearance of Opacities of the Crystalline Lens," at the last meeting of the American Medical Association, says: "A surprisingly great number of persons throughout the country are taking the so-called 'absorption' or 'resolvent' treatment for all forms of eye affections. There is no doubt that this is often distinctly injurious and it is claimed that the normal consistency of the cornea is greatly weakened, and liquefaction of the vitreous is not unusual in these cases," which coincides with my own experience.

I have now had altogether thirteen cases of cataract where I knew the "absorption" treatment had been more or less extensively used, with about the same experience as in the cases reported, excepting that in one case, in addition to the flaccidity of the cornea and liquefaction of the vitreous, in one week after the operation a gray exudate appeared in the pupillary space, afterward changing to yellow, having the appearance of pus. There was a considerable conjunctivitis which I believe was due to an inverted lid. At first I feared a panophthalmitis, but the exudate gradually absorbed, and I was congratulating myself upon a successful result, when one morning I found the anterior chamber filled with blood. This occurred some six weeks ago, and has not absorbed as yet, although it is doing so slowly. The cornea is perfectly clear and the upper portion of the iris is discernable, but as the pupillary space is not yet visible, a prognosis as to he result cannot, at present, be made.

The possibility of removing lenticular opacities by the use of absorbents and resolvents does not, at the present status of medical science admit of a candid discussion. There is no doubt that many recent corneal opacities often clear up to a surprising extent, and that, too, very frequently, without the use of local applications, but there are, in the history of medicine, very few records of the clearing up of the opaque lens.

A few days since my attention was called to the case of a lady in the eastern part of the state. She is 73 years old and blind from cataract, and had used a resolvent treatment for the absorption of her cataracts. A glaucoma was set up from which she suffered great pain, with a complete disorganization of both eyes. If there is the least atropine or other mydriatic in the composition of these remedies, such occurrences will be very frequent, and can be readily accounted for.

THE USE OF ALTERATIVES IN THE TREATMENT OF DISEASES OF THE UVEAL TRACT.*

BY C. F. CLARK, M. D., COLUMBUS, OHIO,

Professor of Ophthalmology, Starling Medical College, Ophthalmologist to St. Francis Hospital, Columbus, Ohio.

It is with no expectation of opening your eyes to a new discovery or even of presenting a new and undeveloped phase of an old subject that I come before you tonight, but I am firmly convinced that in our use of remedies as in other directions we are all prone to adopt routine methods and fall into ruts, which process is often dignified by the name of conservatism. And I am sure that with minds open to the ideas of others and a willingness to profit by the experience of those who have adopted methods other than our own, we may profitably spend an hour in the discussion of this important subject.

No matter how much the ophthalmic surgeon may prefer to throw upon the general practitioner the burden of dealing with questions of internal medication, he often finds himself placed in a position in which he must take charge of such treatment and he cannot properly perform his duty if he is not prepared to take an intelligent view of the general principles of thereapeutics. This is especially the case with the administration of alteratives. I therefore make no apology for introducing a subject which in its general phases belongs more especially to the practitioner of general medicine.

The uveal tract consists of the iris, ciliary body and choroid, but the posterior portion of the cornea consisting of Descemet's membrane with its single layer of epithelial cells forming the anterior wall of the aqueous chamber is also generally considered to belong to it. The nutrition of the vitreous body and lens, and even in a large measure of the retina itself, is dependent upon the integrity of the uveal tract and, when we recall that this is made up in large part of blood vessels held together by a somewhat loose stroma of connective tissue in the interspaces of which lie the important lymph channels of the eye on which elimination of waste products depends, we will be sufficiently impressed with the importance of its diseases. Plastic iritis, anterior uveitis (or serous iritis), cyclitis, the various forms of choriditis and hyalitis which, with its vitreous opacities, so frequently results from them, make up a category of diseases any one of which may tax our therapeutic resources to the limit.

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* Read before the Columbus Academy of Medicine, March 2, 1903.

Local remedies are of the utmost importance and we cannot overestimate the value of such general measures as may be called for in each case to combat special conditions, but in this class of diseases we are peculiarly dependent upon that group of drugs which, for want of a better name, we call alteratives. Alteratives are defined as "drugs producing changes in the tissues themselves as distinguished from those especially affecting assimulation, circulation and excretion." Authorities differ somewhat as to the exact mode of action of these agents but, while the subject is a most important and interesting one, we are, for our present purposes, less concerned with the theory of their action than with the practical question of how to obtain the best results from their use. In a frank case of plastic iritis due to acquired syphilis in the secondary stage we would probably all agree as to the mode of treatment, but differences of opinion are common enough when we come to deal with a case of tertiary syphilis, inherited syphilis, a rheumatic or tubercular patent or that large group of cases in which the underlying cause is doubtful or unknown.

"Mercury" (I quote from Brunton), "has a peculiar power of breaking up newly deposited fibrin and of causing disorganization of syphilitic deposits." On this point we are all agreed, but its prompt action in syphilitic cases has in a measure obscured the fact that it is also invaluable, though not so prompt in its action, in a large number of cases in which no syphilitic element can be found. A realization of this fact is of the utmost importance. I am aware that many high authorities on the action of drugs deny or ignore all action of mercury in non-syphilitic diseases, but a considerable experience in both hospital and private practice has convinced me that its value in other diseases has been underestimated, and I think those observers reason in a circle who conclude that because a given disease, such as iritis, yields to mercury, therefore it is of syphilitic origin. The reaction from the undoubted abuse of the use of mercury in the early part of the last century seems to have caused the pendulum to swing too far in the opposite direction and many high authorities now confine its use strictly to syphilitic cases."

"Iodine and the iodides, and probably also the chlorides,, (I again quote from Brunton), "appear to act on the lymphatic system and produce absorption; their action is especially well marked in cases of glandular enlargement."

Here again the fact that neoplasms and exudates of syphilitic origin sometimes yield so readily to the action of the iodides has apparently given to many the impression that the absorption of an exudate or neoplasm as the result of the administration of these drugs, proves its syphilitic origin. This is by no means the case thouhg, as is well known, the presentation to a pharmacist of a prescription for iodide of potassium and mercury, is taken by many to be a confession of the existence of syphilis.

As the most potent as well as the most generally employed of the alteratives are mercury and the iodide of potassium, it is upon the use of these two drugs that our attention will for the most part be centered.

Nothing in the whole range of thereapeutics can be more gratifying than to witness the gradual disappearance of an iritic exudate of syphilitic origin under the influence of mercury and iodide of potassium, aided by the free use of atropia and hot fomentations. Such deposits seem in many cases to be waiting to be absorbed and to yield at the first attack. We here have much latitude and may be, and doubtless often are, guilty of many errors in our method of administration; we may give too much or we may give too little, and yet, if we see the patient early and persevere we will have the satisfaction of effecting a cure. In the deeper lying and more extensive diseases of the uveal tract, such as anterior uveitis, cyclitis and choroiditis, whether of syphilitic origin or not, the case is by no means so simple, and here we must often exercise all the skill we possess to bring about a favorable result.

With the exception of those instances in which clouding of the cornea or a deposit in the pupillary space cuts off the view of the deeper structures, we often have the very great advantage in cases accompanied by exudates in the uveal tract of observing directly, or by means of the ophthalmoscope the progress of the disease we are treating. By noting from time to time the variations in the acuity of vision and the size and form of the visual field, and above all by direct inspection of the diseased area, we may thus study the effect of our thereapeutic measures in a manner that is impossible in other parts of the body.

If the disease is due to syphilis the results of treatment are obtained promptly in proportion as the case in hand is of recent origin, and the exudate or gumma is soft and easily broken down. In late syphilitic exudates and in non-syphilitic cases accompanied by exudation, the use of alteratives will still bring about absorption in many instances and it is to this latter point that I would *especially* direct your attention. Persistent and judicious use of mercury and iodide of potassium are in my judgment often of great value in cases of disease of the uveal tract in which syphilis does *not* exist.

It is true that there comes a time in all such cases when, if treatment has been neglected, the development of new formed connective tissue with its well-known tendency to secondary contraction has gone so far that little or no improvement may be hoped for. In diseases of the eye, as in diseases of the nervous system and probably in other parts of the body, when what may be termed the atrophic stage has arrived, it is possible by the persistent use of active, alterative treatment to do great harm, and it is not infrequently the case that great difficulty is experienced in determining whether we should persist or not. It is in these late and doubtful cases that I have obtained my best results from preparations containing a small amount of gold and arsenic in combination with mercury.

I think every practitioner of large experience within hearing of my voice will agree with me that in our alterative treatment, whether in diseases of the eye or in general diseases, we are often at a loss for a scientific reason for the course we pursue. It is extremely difficult to obtain an accurate guide as to how we shall so gauge and regulate our treatment as to obtain the best possible results with the least danger to the patient.

In general, we attempt to approximate accuracy in this direction by gradually increasing our dosage, but this plan is, I think, more frequently pursued with a view to testing the patient's powers of toleration rather than with the hope of ascertaining accurately the exact amount that will yield the best results; it being tacitly agreed that the more we can give the better so long as the patient tolerates it. It is probable that in many instances this assumption is by no means correct, but it will doubtless be many years before we have a more accurate and scientific guide in this matter than that somewhat variable quantity which we term our *judgment.* It is possible that in a well-regulated hospital an observer with sufficient skill in the methods of the modern physiological laboratory might by a careful study of the diet, the body weight and the quantity and character of the excretions be able to determine approximately the limitations of economic and effective administration of these drugs.

In gauging our dosage and the activity of our treatment we are *perhaps* correct in establishing the general rule that, if the disease process is active and the amount of exudation considerable, we are justified in making our treatment correspondingly active. The converse of this proposition is not necessarily true for we all know that in relatively late syphilis it not infrequently happens that the most vigorous dosage, even sixty or more grains three or four times a day, is *necessary* if we are to make an impression upon the case, and some of the most brilliant results in syphilis of the brain are obtained by enormous doses of the iodide.

In general it may also, with some reservation, be said that in relatively slight lesions of the choroid and retina, especially in the late stages of cases which have perhaps at an earlier period of their history been subjected to more vigorous treatment, we often obtain our best results by settling down to a prolonged campaign with relatively small doses of the iodide of potassium or sodium or the administration of the bromide of gold, arsenic and mercury, or some equivalent.

After all is said, it must be confessed that in the administration of alteratives, which are of necessity often given without an accurate diagnosis, we sometimes find ourselves bringing out whole platoons and firing volleys where with a little more accurate location of the enemy, a single sharp shooter would do more execution.

In the use of mercury, it should *always* be borne in mind that we are dealing with an *active poison*, and the general principles governing its action should never be lost sight of, but with caution and a due regard for its limitations and dangers, we have in mercury a valuable remedial agent in those diseases of the iris, ciliary body and choroid which, whether syphilitic or not, are accompanied by exudation. Like the other metals, mercury is absorbed very slowly, hence the uselessness and folly of too large dosage and, as pointed out by Cushny, its elimination is still less rapid, being stored up in the tissues of the various organs, the liver, spleen, kidneys and bone-marrow. We should therefore make due provision for its elimination. For this purpose hot baths are of great service and, in many cases, it will be found that the judicious use of pilocarpine is most valuable. The effect of this valuable remedy is much more marked if accompanied by the hot pack.

A remarkable illustration of the difficulties which surround the student of experimental therapeutics is seen in the fact that, while there has been much speculation on the subject, little is positively known of the mode of action of iodine even in so common a disease as syphilis. The iodides are resorted to for their alterative action in the following general diseases which may manifest themselves in the uveal tract: First, in tertiary syphilis; second, in inherited syphilis; third, in other diseases when found in syphilitic subjects; fourth, sometimes in chronic rheumatism, and fifth, with doubtful success in "scrofulous" patients with enlarged lymphatic glands.

Syphilitic exudates and gummata being often easily broken up by mercury, and their absorption or elimination promoted by the iodides, it is natural that our attention should be centered upon the action of these drugs in the various manifestations of syphilis, but as I have before remarked, and cannot too strongly insist, we should not lose sight of the fact that to a less degree the iodides as well as mercury, are at times found to be extremely useful in diseases of the uveal tract which are not of of syphilitic origin.

In our dosage and method of administration of both mercury and the iodides there are still many questions to be answered, and I hope that there are those present this evening who, from their experience in other fields, will be able to afford the ophthalmic surgeons who have these problems to deal with some valuable assistance.

Mercury, iodine, arsenic, gold, cod liver oil and sulphur are among the most important alteratives, and the practical questions for our consideration are: Which shall we select, how shall we adminiser them, and what precautions shall we observe in order to obtain the best results and avoid the undoubted harm which may result from the injudicious use of these powerful drugs?

SOME CLINICAL NOTES ON GONORRHŒA.

BY W. A. HACKETT, M. B.,

Professor of Dermatology and Venereal Diseases in the Michigan College of Medicine and Surgery, Detroit, Michigan.

Most writers, on this subject, begin by saying something about the abortive treatment. Theoretically the abortive treatment of gonorrhea is the ideal one, but in my hands it has not been a success. A strong solution of nitrate of silver is applied thoroughly, to the first inch and one-half or two inches of the urethra. I have used this method on sixteen patients, in my clinic, seen within three days after infection when there was only a slight watery discharge, but it has so far proven a complete failure. Instead of aborting the disease, the symptoms have been increased in severity and the attack prolonged. Your attention will now be called to some recent plans which, though not abortive, do, in most cases, lessen the time required to relieve and cure urethritis.

Copious irrigation of the urethra, with dilute antiseptic solutions, seems to be one of the best means of curing the disease that has been proposed so far. The Valentine apparatus may be employed, or a soft rubber catheter (No. 8 or 10) attached to a hard rubber syringe. Now a few words about the solutions to be used.

Permanganate of potash, one to five thousand, as hot as can be borne, oftentimes causes rapid improvement in both anterior and posterior urethritis. The strength may be gradually increased to one to fifteen hundred. Solutions of permanganate usually cause slight œdema of the urethra and in some cases severe pain and inflammatory reaction.

Bichlorid of mercury, one to fifteen thousand is a very good solution and I have often had very fair results from it. Most patients complain of an irritation and a burning sensation for a long time after its use.

Among the more recent local remedies are protargol and mercurol, both of which I have used with very fair success. I have had no experience with argonin, which is highly recommended by a number of authors.

In five recent cases of urethritis, I have used a new silver preparation, known as albargin, or gelatose silver. It is a slightly yellowish powder, quite stable towards light and soluble in warm or cold water.

Albargin is used in solutions, varying in strength from 0.1 to 0.2 per cent., according to the amount of irritation present in the urethra. With this preparation, I have had such good results, that I have decided it to be one of the best anti-gonorrheal remedies. The five cases referred to were practically cured in two weeks, the disease not having extended to the posterior urethra. All of them were seen within five days after infection and all were able to come daily to my office for irrigations.

The Valentine douche was used, the funnel being elevated about four feet above the pubes, the nozzle being alternately pressed up to and removed from the meatus, so as to thoroughly cleanse the first three or four inches of the urethra without forcing the solution into the deep urethra. The patients were also supplied with a solution (0.1 to 0.2 per cent.) and a syringe holding about half an ounce, and directed to use it two or three times daily between the visits to the office. One of these patients with a severe attack and whose wife was away on a three weeks' vacation, was very anxious to be cured speedily. He came to my office twice daily for irrigation, and at the end of one week there was practically no discharge. However, the irrigations were continued once a day for the second week when he was discharged as cured. I saw this patient one month after his wife had returned and there had been no return of the symptoms.

One of the five cases here reported was a young woman. The urethra and labia minora were infected. The vagina was irrigated three times a day with albargin solution and local applications of ten per cent. ichthyol and glycerin made to the infected parts. Between treatments the patient kept pledgets of absorbent cotton saturated with lead and opium wash, between the labia, thus absorbing the pus discharged and relieving the local irritation. The patient got along nicely and was cured in about two weeks.

Internal medication is necessary, as gororrhea is now looked upon by many good authorities as a constitutional disease. A person cannot tell in what case, severe complications may occur, especially if the gonococci have reached the posterior urethra.

If there is much pain on urination, an alkaline diuretic should be prescribed. I usually give a mixture containing acetate of potash, hyoscyamus and sweet spirits of nitre, with a view to rendering the urine neutral, or slightly alkaline, and at the same time increasing the flow of urine. Capsules of salol and boric acid, 5 grains of each, are useful in bringing about an antiseptic condition of the urine. During the latter stage of an acute urethritis, it is well to give capsules, or tablets of oil of sandal wood and methylene blue. Besides these remedies, the diet and habits of life should be regulatd.

The five cases were seen early and treated often and thoroughly, hence the good results.

It is necessary for the physician to warn the gonorrheal patient of the danger of serious complications, such as gleet, stricture, prostatitis, cystitis, arthritis, etc., and to impress upon him the necessity for energetic treatment. If possible, patients should come daily to the office for treatment and should be made to pay well for this kind of work.

An old physician once said he would rather have syphilis than gonorrhea and when I see the awful results of gonorrhea in both sexes, I believe he was not far astray.

TYPHOID IN ITHICA.—According to the *Medical News*, up to and including the end of week of March 10, there have been 755 cases of typhoid in Ithaca since January 10, of which clinical history has been obtained. The number of unreported cases is unknown, but probably very high. It seems probable that at least 1000 cases have developed, and the end is not yet in sight. The latest information obtainable would seem to show that the Ithaca water-supply has been infected for over a year, and that the present outbreak is simply a recrudescence of last year's milder epidemic.

SPASMODIC COUGH.

BY ELMER S. OMAN, A. B., M. D., COLUMBUS, OHIO.

Spasmodic cough is a subject of equal importance to the general practitioner and the specialist. Not a little of his reputation will depend upon his ability to quickly relieve a persistent spasmodic cough which is so annoying and distressing to the patient and which will not respond readily to ordinary treatment and medication.

Cough is a symptom or a concomitant of most of the affections of the organs of the respiratory system, most frequently in disase of the larynx, trachea, bronchi, lungs or pleura, less frequently in disease of the nasopharynx, and still less frequently in hysteria and in disease or irritation in organs not forming part of the respiratory system. Cough resulting from disease or irritation in organs remote from the respiratory apparatus is called reflex, but properly speaking all coughs are reflex action. The nervous element is the most prominent feature of spasmodic cough, other changes being absent or secondary. Most of the spasmodic coughs are persistent, dry, barking, ringing or explosive.

ETIOLOGY—Butler divides causes into direct or respiratory, indirect or non-respiratory. The direct causes are disease (including new growths) of the larynx, bronchi, lungs, pleura, also direct irritation (from chemical or mechanical substances) of the laryngeal structures and pressure on or irritation of the laryngeal nerves.

Of the indirect causes we have a great many, some of which we mention here: Rhinitis, spurs and deviations of the septum, nasal polipi, irritation of dry crusts, adenoid growths, elongulated uvula, irritation in auditory meatus; also various diseases of the generative organs, hysteria, anemia, chorea, hyperacidity of stomach, valvular lesions, uric acid, toxemia, chronic alcoholism, structural diseases of the brain and spinal cord and various other diseases. In most spasmodic reflex coughs there is no change in structure of tissue of larynx. The general health is slightly, if at all, impaired and there are no physical pulmonary signs. Some times there is a reddened catarrhal condition of the mucous membrane, and hyperesthesia. The seat of cough has never been definitely located. Some think it in the larynx, others in the posterior part of the pharynx above the epiglottis or in the bridge of the bronchi. However this may be, the fact remains that coughs are as prevalent as ever. Nearly all coughs are worse or aggravated at night, so break in on the sleep and rest of the patient.

Spasmodic cough is the principal symptom in the second stage of whooping cough and in the second stage of bronchitis; also in the softening stage of pulmonary phthisis. In infants coughs are not common, but are frequent in older children.

The diagnosis between the different forms of cough is not at all easy. The exact cause in each case should be determined by a thorough examination of the nose, ear, pharynx, larynx, heart, stomach and lungs, and the patient's general condition should be considered.

The laryngoscope will aid largely in making a diagnosis. When the cough is very severe and unyielding and the family history bad, you may suspect a tubercular condition. The prognosis is good if the affection is only spasmodic, but not so good if a diseased condition of the respiratory organs is present or the lesion extensive.

By way of treatment remove the cause if possible. Treat the affected parts. If no cause can be found and the cough is purely spasmodic and nervous, the use of the bromides, the iodide of potash, antipyrine and other sedatives will generally give the best results. Opium and expectorants do not benefit these troubles very much. Sometimes a climatic change is beneficial. Cold baths and inhalations of various vapors have been recommended with but little benefit. Nitrite of amyl and whiffs of chloroform often give relief. Small and frequent doses of nitroglycerin act as an antispasmodic. But in most cases, if you treat the disease which causes the cough and of which the cough is a prominent symptom, these troublesome spasmodic coughs disappear.

Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting, February 2, 1903.

Francis W. Blake, President. John Dudley Dunham, Secretary

Dr. T. C. Hoover read a paper on

DISLOCATIONS.

Dr. H. C. Ruter was elected to membership.

F. L. Stillman reported a case of deafness resulting from locomotor ataxia.

Regular Meeting, February 16, 1903.

THE USE OF ALTERATIVES IN THE TREATMENT OF DISEASES OF THE UVEAL TRACT

was the title of the principal paper of the evening (page 117), read by C. F. Clark. It was discussed by Drs. J. E. Brown, T. W. Rankin and C. S. Hamilton.

Drs. Charles W. McGavran and H. A. Rodebaugh were elected to membership.

Regular Meeting, March 2, 1903.

ECZEMA

was the subject of a paper by Dr. J. B. McComb.

Dr. D. N. Kinsman, chairman of committee on sanitation, made a report on the present epidemic of scarlet fever. The substance of this report is given editorially in this issue.

FRANKLIN COUNTY MEDICAL SOCIETY.

Regular Meeting, February 24, 1903.

D. N. Kinsman, M. D., President. C. S. Means, M. D,, Secretary

THE ABSORPTION TREATMENT OF CATARACT AND ITS EFFECTS ON THE EYE

was the subject of a paper (page 113), by J. W. Wright, M. D. This paper was discussed by Drs. J. C. Bishop, W. J. Means and T. H. Davidson.

TRICUSPID REGURGITATION

was the title of a paper (to be in next issue) by Dr. W. E. Allaman.

General discussion.

At this meeting the officers for the ensuing year were elected.

Regular Meeting, March 10, 1903.

Sherman Leach, M. D., Pres't. Chas. W. McGavran, M. D., Sec.

The paper of the evening was by Dr. Geo. M. Waters on

SCARLET FEVER.

Following the reading of the paper there was a general discussion on the disease as it appears in the present epidemic, in which the following physicians took part: Drs. Frank McCafferty, E. A. Hamilton, Sherman Leach, W. J. Means, D. N. Kinsman, Andrew Timberman, J. W. Wright, Rebecca Combs and Theodore Davidson.

THE AMERICAN CONGRESS ON TUBERCULOSIS.—The next meeting will be held in St. Louis, Mo., U. S. A., July 18th to 23d, inclusive, 1904. The work of organization is being pushed as rapidly as possible. To facilitate this the Congress has been granted a charter, hus making it a legal body and by this means greatly facilitating the work of reorganization on the lines mapped out at the last meeting, when it was decided that a radical reorganization should be completed by the officers elected.

For the purpose of completing the organization of the International or World's Congress on Tuberculosis on strictly ethical lines, an advisory committee consisting of twenty-seven physicians has been appointed to assist the council in perfecting plans for the meeting.

The other committees will be named as soon as they can be selected. It is earnestly requested that the secretary be informed of the date of all meetings of medical societies, names of officers of same and other information that would aid him in his work.

Practical Therapeutics.

FOR PRUITUS ANI:

R	Acidi carbolici	gr. x		62
	Calomel	gr. xx	1	25
	Ung. zinci oxidi	oz. i	30	

M. Fiat. unguentum.

Signa: Apply every four hours.

FOR ECZEMA:

R	Acidi salicylici	gr. xxv	1	56
	Pulv. amyli.			
	Zinci oxidi	aa dr. ii	8	
	Petrolati	oz. ss	15	

M. Signa: Apply locally twice a day.

FOR PRICKLY HEAT:

R	Zinci carbonat fræcip	dr. iv	16	
	Zinci oxidi	dr. ii.	8	
	Glycerinæ	dr. ii	8	
	Aquæ rosæ	fl. oz. viij	240	M

Signa: Apply locally.

FOR HERPES LABIALIS:

R	Camphoræ	gr. v		31
	Pulv. marantæ	gr. xxx	2	
	Bismuth subnitratis	gr. xxx	2	
	Aquæ rosæ	fl. dr. iv m	8	

Signa: Apply locally.

FOR EPILEPSY:

R	Tr. belladonnæ	m ii		13
	Sodii bromidi	gr. xv		97
	Chloral hydrate	gr. v		31
	Aquæ menthæ pip. q. s. ad	fl. dr. i	4	

Signa: To be taken just before retiring.

THE COLUMBUS MEDICAL JOURNAL.

A MONTHLY MAGAZINE OF MEDICINE AND SURGERY.

ISSUED BY THE COLUMBUS MEDICAL PUBLISHING COMPANY

EDITORS.

JAMES U. BARNHILL, A. M., M. D., Ph. D., 248 E. State Street.
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MARCH, 1903.

Editorial.

UNIFORMITY OF MINIMUM REQUIREMENTS THROUGHOUT THE STATE.

The third annual meeting of the State Board of Examiners for Entrance to Medical Colleges was held February 28th at the office of the Secretary of the Ohio State Board of Medical Registration and Examination. The board was organized for the coming year by the election of E. W. Coy of Cincinnati as President, Edward L. Harris of Cleveland as Vice-President, Charles E. Albright of Columbus as Secretary, and H. J. Eberth of Toledo as Treasurer.

The resolutions passed by the board at its last meeting were made to agree to the resolutions adopted by the State Board of Medical Registration and Examination respecting the scope of work to be covered in future examinations for entrance to medical colleges. It was unanimously agreed by the board that conditioned applicants be examined for removal on such conditions on the basis of their previous examination; also, that applicants who fail, shall be charged an additional fee for re-examination. It was further agreed that all manuscripts in any subject be returned for reading and grading to the examiner who made the questions in such subject. The time schedule for the next examination was agreed upon and the board adjourned to meet upon call of the President.

In the matter of removal of conditions it will be seen that the members of the board mean to be fair and generous toward applicants and not to change the standard of examination for an applicant who is left with one or two conditioned subjects to be removed at a time when the general requirements are much advanced.

Hitherto the same list of questions were used at the four cities in which examinations were held and the only possibility of a variation of standard was in the grading of papers by different persons. By the proposed plan there will be absolute uniformity throughout the state.

It will be seen, also, that hereafter all applicants for entrance to medical colleges in the State of Ohio will be upon as nearly an equal standing as it is possible to devise. The same questions are given in each of the four cities of Ohio and at the same hour, the same length of time being allotted in each. Hereafter one man will read all the papers returned in the state in any given subject, so that the basis for grading will be the same for all. It is hoped in this manner to remove any possible criticism and to render the board's services as valuable as they can be made to the medical colleges and to the medical profession of Ohio.

SCARLET FEVER.

Scarlet fever is always present in Columbus. It spreads slowly, and all but 38 per cent., according to Juergenren, of any populaion escape its attacks. Measles is much more infectious; it affects 99 per cent. of the population, and in a place hitherto free from both infections measles will cover the ground in few months which it takes scarlet fever years to accomplish.

An increased number of scarlet fever cases began to be reported about the first of February. Up to this time there have been a little over one hundred reported. Of these 50 per cent. are adults. It prevails the most extensively between Fifth street on the west and Franklin park on the east, between Long street and Rich, but it extends from Seventeenth avenue on the north to Donaldson street on the south, and from Franklin park on the east to Chicago avenue on the west. It is more prevalent in some parts of the city than in others; for instance, one physician, who probably visits more patients than any man in the city, reports only two cases of scarlet fever, while others, seeing a much smaller number, report many.

Scarlet fever has for ten years prevailed in Columbus in a mild form. The fatality has been small. Most of the cases reported now appear to be mild, and yet the anginose form seems to be more prominent than usual in Columbus. There have been so far no malignant cases reported; but one up to this time has been reported which would seem to come under this head. In general the cases recover easily, completely, without serious complications. The difficulty with scarlet fever is that it can so easily, and sometimes so speedily change its type. From 1800 to 1804 it prevailed violently, with fatal effect, in Ireland. From 1804 till 1830 there was scarcely a fatal case reported. In Sydenham's time he had never seen a grave case, and he called this "the name of a disease." In 1873, while smallpox was prevailing extensively in this country and also at Columbus, I saw three children die of scarlet fever on Swan street, within three days. These cases had been kept close in their father's house for three weeks for fear of contracting this disease. How it reached them we could never find out. In this city we have no means of localizing the center from whence this epidemic spread, nor is this limited to Columbus. I saw a case, adult, sick with scarlet fever in Worthington.

There are many cases of sore throat in the city at present. These are unaccompanied with any eruption. It has been held by some that these are cases of scarlet fever without the eruption. While not denying that such cases may occur, cases in which I have seen the mother, or some older person of the family, with severe sore throats, where there were children who had never had scarlet fever, in three weeks the children have not shown any effect of the contagion of scarlet fever. However it may be in other physicians' practice, I have seen no evidence in my own to lead me to believe that these sore throats are manifestations of scarlet fever. D. N. KINSMAN.

NORTHWEST MEDICINE.

Northwest Medicine is the title of a promising medical journal recently established at Seattle, Washington, by the Washington Medical Library Association. Dr. Clarence A. Smith and James B. Eagleson are the editors. We are glad to welcome this new journal as one of our exchanges. t will bring news from the profession in the northwest which has thus far neglected local medical publicationsI. West of Minnesota and north of California there has hitherto been but one medical journal published. We are glad to note that the journal will be neither edited or maintained in the interest of any particular individuals, nor for the advantage of a special section. It is intended for the benefit of the entire profession, the primary idea being to make it an adjunct of the Washington Medical Library Association. Provision i sto be made for the care of the public (Carnegie) library.

The function of a local medical journal is admirably set forth in the first editorial of this new periodical, and if it can realize the high aim therein expressed it will accomplish great good not only for Washington and adjacent states, but for the entire profession.

"The existence of a monthly journal in a certain section," says the introductory editorial, "offers a special inducement to members of the profession, tributary to it, to crystallize their views and experiences into definite expressions of thought for the benefit of their fellow physicians.Any man of intelligence and spirit aspires, at times, to withdraw from communion with himself and engage in contact with the minds of his peers, displaying his own independence of thought and belief. This form of journal stands as a stimulus to this kind of individual action in the region where it is placed.

We have all observed the enthusiastic practitioner, fresh from college or hospital service, with the medical world at his feet, who, after meeting the usual rebuffs and disappointments of the first year's practice, settles into the rut of daily routine work, content to accept what comes to him, and rarely gratifying the taste for original or special efforts which characterized his earlier years. His inactivity in these respects is in part due to lack of opportunity and facilities, but also to absence of example among his associates. Any means of encouraging the display of study and investigation on the part of the physician will certainly commend themselves to all who have at heart the improvement and best interests of the profession."

ANNUAL REPORT OF STATE MEDICAL BOARD.

The State Board of Medical Examination and Registration recently filed its annual report. According to this report there were issued during the year under exemption provision of the law three hundred and twenty-five certificates, with but one rejection. Out of a total of 79 candidates examined, 62 received certificates. Three certificates were granted to midwives. The total number of certificates issued during the year was 387. Certificates issued to osteopaths without examination were 20, while one was issued upon examination. Total receipts from fees during he year was $5989.14. The disbursements amounted to $5139.44. At the end of the year the board had $6219.34 in its treasury.

The board has endeavored to make the standard of examinations in uniformity with those of other states. It is reported that 25 per cent. of those receiving certificates in this state during the past year held degrees in the arts and sciences. There were fewer cases of violation of the laws than in any year in the history of the board.

Medical News Notes.

Dr. C. M. Taylor and wife have returned from California.

Dr. Harvey Kirk is suffering from a severe case of pneumonia.

Dr. Harvey Fraker, City Bacteriologist, has filed his report for 1902.

Dr. Harley Brelsford of the class of 1901, O. M. U., and wife spent a few days in the city visiting friends.

Dr. John E. Wood of Marysville, O., aged 32, a prominent physician, and a former health officer, died January 24 of tuberculosis.

Dr. A. E. Hoskinson, charged with criminal practice, was recently acquitted by he jury in Judge Marcus G. Evans' court and the court nollied the indictment against Dr. Charles F. Cookes.

BACCALAUREATE.—The baccalaureate sermon for the Ohio Medical University will be delivered by Rev. W. O. Thompson, President Ohio State University, Sunday, March 29th, 10:30 a. m., at the Third Avenue Methodist Church.

In the case of Dr. E. B. Mauk of Delphos, O., vs. Dr. N. E. Brundage et al. [Board of Health of that village], error to the Circuit Court of Van Wert county, the Supreme Court reversed the judgments of the lower courts and remanded the cause.

STARLING MEDICAL COLLEGE COMMENCEMENT.—Dr. E. C. Brush of Zanesville, Surgeon General of Ohio, will give the address to the graduating class the evening of the 16th of April, at the Grand Opera House. Dr. Starling Loving will deliver the address for the faculty. The banquet will be held at the Neil House.

COMMENCEMENT EXERCISES OF OHIO MEDICAL UNIVERSITY.—The annual Commencement of Ohio Medical University will be held at the Great Southern Theater the afternoon of April 16th. Rev. Carl Doney, pastor of King Avenue Methodist Church, will make the principal address. Dr. A. M. Bleile will deliver the address on behalf of the faculty. The banquet will be given at the Great Southern at 9 o'clock in the evening.

LOGAN COUNTY MEDICAL SOCIETY.—The Logan County Medical Society was reorganized March 5th by the election of the following officers: President, Dr. N. V. Speece of Quincy; Vice-President, Dr. C. W. Heffner of Bellefontaine; Secretary, Dr. Carrie Richeson of Bellefontaine; Treasurer, Dr. P. D. Covington of Bellefontaine.

At the twelfth annual meeting of the American Electro-Therapeutic Association, held at the Hotel Kaaterskill, Greene county, N. Y., September 2, 3 and 4, 1902, Dainel Roberts Brower, M. D., LL.D., of Chicago, Ill., was elected President, and C. E. Skinner, M. D., LL.D., New Haven, Conn., Secretary.

The following physicians and dentists have taken offices in the McLene building on East State street: J. D. Dunham and Wells Teachnor, 185 East State; T. E. Courtwright and Scott Fulton, 183 East State; F. W. Blake, J. B. McComb and Dr. McCoy, first floor east; Drs. C. O. Probst and H. C. Rutter; Dr. D. V. Burkett, F. A. Castro, D. D. S., M. D., and W. A. Newell, on the second floor.

CHAMPAIGN COUNTY MEDICAL SOCIETY.—The Champaign County Medical Society was reorganized under the plan indicated by the State Medical Society. "On January 30, 1903, we were visited by Dr. Horace Bonner of Dayton, in his capacity of councilor for the state society. The physicians of the county were notified and quite a number gathered in Urbana on that day to listen to Dr. Bonner's explanation of the efforts of the state society to reorganize the county societies and ally them with the state society. Our society had not held a regular meeting for nearly three years and was practically dead. Dr. Beebe of Cincinnati and Dr. Minor of Springfield were present with us. Dr. Bonner's talk had the effect of giving new interest to the members present and Dr. Beebe ably seconded him in his efforts. All took dinner togeher at the Douglass Inn and the meeting resumed in the afternoon. At the afternoon session Dr. B. B. Leonard of West Liberty delighted those present with an excellen paper on Grave's disease.

We determined to hold our regular meeting February 12th to reorganize under the state society plan and elect officers for the coming year. This we did on the date aforesaid and elected Dr. S. M. Mosgrove, President; D. R. Emmers, Vice-President; D. O. Brine, Treasurer, and E. W. Ludlow, Secretary. We adopted a new constitution in conformity with that laid down by the state society.

New interest is shown by the physicians of the county and we hope to have a lively and effective society from this time on."

E. W. LUDLOW, Secretary.

THE SAMUEL D. GROSS PRIZE, $1200.—The conditons annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page, it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 S. 13th St., Philadelphia," on or before January 1, 1905. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanes the successful essay. The Committee will return the unsuccessful essays if reclaimed by their respective writer, or their agents, within one year. The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize. John B. Roberts, M., D.; William L. Rodman, M. D.; William J. Taylor, M., D., Trustees.

Obituary.

THEODORE G. THOMAS.

Theodore Gaillard Thomas, M. D., LL.D., of New York, died in Thomasville, Ga., on February 28th, at the age of seventy-one. He was educated from the Medical College of Charleston. From an obituary notice in the *Medical News* we quote the following:

It was Dr. T. Gaillard Thomas who said "The older I grow in medicine, the stronger becomes the conviction that the medical profession exemplifies that 'great heart of the Saviour of the world.' " Dr. Thomas has lived his years and it is the conviction of all who knew him that his own life was a model of the highest type of manly vigor, of Christian sympathy and of professional skill.

His sudden death on February 28, at his winter home, in Thomasville, Ga., was a shock to all who believed his health to be unimpaired. Although he was in sis seventy-second year, he was a man young in spirit and in vigor, and it was not thought possible that the attack of grip, from the effects of which he went south to recover, would prove fatal.

Dr. Thomas impersonaed the culture of generations flowering in the ardent personality of a genius. He came of a well-known family in South Carolina. His father was the Reverend Edward Thomas, the descendant of an English forbear sent by the Church of England to South Carolina, while his mother, Jane Marshall Gaillard, was the daughter of Judge Gaillard of the Supreme Court of South Carolina, who was of old Huguenot blood.

Dr. Thomas was born in 1831 and received his education in the Medical College of Charleston from which he graduated in 1852. Although his education was received in the days when a good manner and friendship with the faculty were chiefly essential to a medical degree, Dr. Thomas, nevertheless, was able to come unfriended to New York and carry off the honors from New York men in a competitive examination at Bellevue where he spent some time as resident physician.

Aftr spending a year and a half visiting different European hospitals he returned to New York where for half a century he was a leader in medical thought. He grasped the great ideas that were revolutionizing medical science, such as Virchow laid down in his science of Cellular Pathology, and was one of the foremost men to build up on them the vast structure of modern medicine in this country.

Throughout his life he has been a teacher as well as a physician. It was in 1855 that he bagan his work in New York. He soon organized a quiz class, the second of its kind in the city where he first showed his remarkable capacity as a teacher. From his success in this line Dr. Thomas was made adjunct lecturer in the University, and later physician to Bellevue Hospital where he was one of the first to bring about real advances in the science of exact diagnosis. The keynote of his success was direct observation, and throughout his life he retained the warmest enthusiasm for bedside work, with ability to impart his mehods and enthusiasm to others. Physicians who called him in consultation, and he was one on whom many relied, were often surprised at the quickness and sureness of his diagnosis, which was the result of long and varied experience.

Among his earliest friends was the late Dr. Metcalf who took him into partnership and who introduced him to a large clientele which Dr. Thomas, by his charming manners and courtesy as well as by his skill and keen attention to his profession was well able to hold.

In 1863 he was made Professor of Obstetrics in the College of Physicians and Surgeons, and later became Professor of Gynecology in the same college. Dr. Thomas preferred surgery to medicine and in 1868 withdrew from general practice that he might devote himself more exclusively to his gynecological work. He resigned the position of visiting surgeon to Bellevue which he had held for fifteen years and became a surgeon of the Woman's Hospital. He was also connected at various times with St. Luke's, Roosevelt, the French, and Nursing and Child's Hospitals.

The result of his experience in his chosen branch of the profession he contributed freely to medical journals and also incorporated it in a work on gynecology which has passed through six editions and of which 60,000 copies have been sold. It has also been translated into seven languages.

The original work that Dr. Thomas did in gynecology, the methods of operating that he devised and taught, and the practical applications of science to practise such as he device of the incubator for the prematurely born all placed him in the position of a leader and it is safe to say that he did more to mold the ideas of his generation in gynecology than any other man in this country.

Dr. Thomas was a man whose talent for friendships amounted to an art. On the occasion of his seventieth birthday, some three hundred representative physicians of the country met to do him honor and on that occasion he spoke himself in love and praise of the group of distinguished men who had been his friends and who had passed away; while his living friends, men who stand first in the ranks as physicians, toasted him with words of friendship and regard.

Dr. McLane said of him: "Dr. Thomas has learned that precious art of knowing how to live, and his high sense of honor and integrity has won for him the highest esteem."

The Rev. Dr. Greer said: "To meet and find a *man*, was it not the greatest of all human charms? for back of all professions and all successes, whatever the field his was the charm of the *man*."

Dr. Weir Mitchell spoke of him as "a friend, intelligent and noble." Dr. Welch said: "There are many to call him master. He has numberless friends and admirers, and his colleagues appreciate the lovable character of the man who has the best and the highest ideals."

Though one may cull the spoken words of friendship from those who could appreciate him professionally, it is impossible to gather any expression of the feelings of love and gratitude that he has inspired in the hearts of his patients. Through fifty years of active work he has continually relieved suffering and given his patients the confidence of returning health; and more, he has worked out new methods by which relief has been given to multitudes who knew him only in name.

No brighter crown need be awarded to a man at the end of a long and useful life than the consciousness of having left the world better than he found it and the knowledge that his friends hold him noble and generous, and dear.

CHANCY CLARK DUNHAM, M. D.

Dr. Chancy Clark Dunham, of Fulton, O., aged 44 years, died suddenly on Sunday, February 22, 1903. On the occasion of a public funeral, conducted in part by the I. O. O. F., at which the doctor officiated as chaplain, he fell from the ranks while on his way home from the service. He leaves a widow and two sons, aged 9 and 12 years.

Dr. Dunham was an alumnus of Columbus Medical College, class of 1885. He practiced medicine for the succeeding two years in Marengo, O., then located in Fulton, O., where he has for sixteen years served the people with fidelity and efficiency.

Dr. Dunham was a man of good mental endowment, a profound and conscientious student, keeping abreast of the scientific advances in his beloved profession.

He was prominent in his county as a physician and citizen, seeking always the chief good to his large clientale. He was county coroner for two or three terms, and at the time of his death was a member of the Morrow County Board of Pension Examiners, which position he had filled for a number of years. He was a member of the M. E. church of his village. * * *

His most intimate friends knew that he had for some years past organic heart disease. During the recent severe winter, he had traveled miles of rough country roads, enduring the exposures incident to a large practice, ministering to the sick, many times himself being the chief sufferer.

His pastor fittingly stated his case when at the funeral service he discoursed from the text used as the epitaph of Dr. McClure, "Beside the Bonnie Brier Bush": "Greater love hath no man than this, that a man lay down his life for his friends."

ARISTA O. LUCAS, M. D.

Dr. Arista O. Lucas of New Washington died February 3, 1903. Dr. Lucas was born in Johnsville, Morrow county, April 5, 1865. The doctor acquired his education in the common schools and later at Ada, teaching school to defray his expenses. He read medicine with Dr. Eli Stofer of Bellville, and in September, 1888, entered the Western Reserve Medical College at Cleveland, where he was graduated with honors in March, 1891. He located at West Point, Morrow county, where he practiced until July, 1892, and then removed to New Washington where he practiced until July, 1892, and then removed to New Washington where the remainder of his life was passed.

Recent Medical Books.

HARRINGTON'S HYGIENE. A Manual of Practical Hygiene for Students, Physicians and Health Officers. By Charles Harrington, M. D., Assistant Professor of Hygiene in the Medical Schoolof Harvard University. New (2d) edition, revised and enlarged. In one octavo volume of 755 pages, illustrated with 113 engravings and 12 full-page plates in colors and monochrome. Cloth, $4.25, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

The demand for a second edition of this work within a little more than a year from the appearance of the first is very satisfactory evidence of the appreciation which it has met. During the interval, research in the field of Hygiene has been active and fruitful, and the results have been incorporated in the present edition. A chapter on the Relation of Insects to Human Diseases has been added. Many of the other chapters have been entirely rewritten to present the latest knowledge, and throughout the book will be found evidence of the searching revision to which it has been subjected.

The present century brings with it the generally accepted teaching that within the field of preventive medicine lie the greatest possibilities for future success in the reduction of disease prevalence. It is, therefore, an important duty which every practitioner owes to himself and to his patients, to render himself thoroughly conversant with the most up-to-date theories and practical ideas in this science. For this purpose we know of no book that is better adapted than Harrington's Hygiene. In its pages the subject is considered thoroughly, clearly and in its most modern aspect. The work is so comprehensive, and at the same time so, admirably simple, that it serves equally the needs of student, physician, health officer and scientific sanitarian.

SAUNDER'S AMERICAN YEAR-BOOK. The American Year-Book of Medicine and Surgery for 1903. A yearly Digest of Scientific Progress and Authoriative Opinions in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes—Volume I, including General Medicine, octavo, 700 pages, fully illustrated; Volume II, General Surgery, octavo, 670 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Per volume: Cloth, $3, net; half morocco, $3.75, net.

We do not know of any similar publication, either American or foreign, that can compete in any way with this excellent Year-Book, published by W. B. Saunders & Company. It is not an indiscriminate collection of extracts clipped from any and every journal: the matter is carefully selected, edited, and in numerous cases commented upon by the eminent authorities whom Dr. Gould has enlisted as his assistants. Every new theory and scientific discovery worthy of the consideration of the profession has found a place in this unusually complete Year-Book; and the names of the several editors are sufficient guarantee of a proper discrimination. The work comes to us in the same dress as last year—in two volumes. Volume I contains General Medicine, and Volume II General Surgery, the volumes being sold separately if desired. As usual the illustrative feature is well taken care of, there being eleven full-page inserts, besides many excellent text-cuts. We strongly recommend Saunders' American Year-Book as the best work of its kind on the market.

HARRINGTON'S ABDOMINAL ANATOMY. The Anatomy of the Human Peritoneum and Abdominal Cavity considered from the standpoint of Development and Comparative Anatomy. By George S. Huntington, M. D., Professor of Anatomy in the College of Physicians and Surgeons, Columbia University, New York City. In one handsome quarto volume of 590 pages, including 300 full-page plates in colors and monochrome, containing 582 figures. De Luxe Edition. Gilt top. Uncut edges. $10, net. Lea Brothers & Co., Philadelphia and New York, 1903.

This comprehensive and authoritative work should appeal to a wide constituency of readers. Dr. Huntington has approached the mysteries of the Peritoneum and Abdominal Cavity in the light thrown upon it by Embryology and Comparative Anatomy, thereby clarifying the hitherto difficult and complicated morphological problems presented by these regions.

The book represents the course in visceral anatomy developed during many years at Columbia University, and is unique in its marvelous wealth of illustrations, amounting practically to an atlas, with full explanatory text. These illustrations are, for the most part, taken from preparations in the Morphological Museum of Columbia University, and wherever practical direct photographic reproductions of the actual preparations are given. The introductory pages are devoted to the study of development, after this come the Anatomy of the Peritoneum and Abdominal Cavity, and the Comparative Anatomy of the Stomach; the Anatomy of the Peritoneum in the Supracolic Compartment of the Abdomen; the Large and Small Intestine; the Ileo Colic Junction and Cecum, and the Morphology of the Cecum and Veriform Appendix.

Each of these several sections is thoroughly elucidated in detail. The Morphology of the Vertebrate Ileo-Colic Junction and the structural details of the Human Cecum and Appendix are considered very fully by reason of the extensive material available and the paramount clinical importance of these subjects.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and especially prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners by leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., Montreal; M. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., Boston; E. Landol, M. D., Paris; Thomas G. Morton, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh, and John Harold, M. D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. J. B. Lippincott Company, Philadelphia and London. Cloth, $2. Volume 4, Series 12th.

The fourth volume of International Clinics is even more complete than its predecessors. Vast improvements have been made in this notable work in the past two years. It is one of the most practical and economical works for the general practitioner that it is possible to conceive. The full set contains over 1200 pages, with 12 colored plates and 218 text illustrations, illuminating 98 articles, divided into 28 in the Department of Medicine, 27 in Therapeutics, 22 in Surgery, 4 in Obstetrics and Gynecology, 5 on the Eye, Ear, Nose and Throat, 4 on Neurology, 5 special articles on subjects not mentioned above, and 3 monographs, one each on the Progress of Medicine, the Blood and the Function of the Digestive Glands.

It also contains excellent portraits and biographical sketches of Drs. H. C. Wood and W. W. Keen.

THE COLUMBUS MEDICAL JOURNAL.

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TUBERCULOSIS AND THE SANATORIUM.*

BY JOHN H. LOWMAN, A. M., M. D.,

Professor of Medicine, Western Reserve University, Cleveland, Ohio.

That tuberculosis is a communicable, preventable and curable disease is now the common information of the medical profession and is gradually seeping into the knowledge of the public. Our ideas regarding the communicability of the disease, which were rapidly culminating to a point of conviction received definite form through the discovery of the tubercle bacillus. Prevention followed as a corolary. Years before Koch's discovery Brehmer had been working along the lines of curability and although sanatoria had existed before Goerbersdorf sanatorium was founded it was he who crystalized the developing theories into positive form.

To these two men, Brehmer and Koch, is due the recognition of having demonstrated by adequate experiments the true pathology and thereapeutics of this formidable disease.

The U. S. census reports for 1900 cite one million (1,039,094) deaths from all causes, and one hundred thousand (111,059) deaths from consumption. The poportion of deaths from consumption was ten (10.889). In all probability there are a million actively tubercular patients in the United States. Each one of these is more or less contagious. It is, of course, impossible to control this million and to attempt to stamp out the disease by isolation as has been done with leprosy. The question is by no means as simple, even were the means of operating it available.

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* Read by invitation before the Columbus Academy of Medicine, April 8, 1903.

The proposition before us would then be indeed readily comprehensible:

Cause: The bacillus.

Prevention: Hygiene and destruction of the bacillus.

Cure: Sanatoria.

Clear and correct and scientific as these basic propositions may be they must be moulded into our body politic, our public service, into the very life of the commonwealth in order to be effective. They must be approached from as many sides as life itself presents for there is scarcely a place where two or three are gathered together when some phase of these questions will not arise. The Utopia when all men will know and respect the laws of health we do not expect, but the leaven of suitable knowledge well distributed will work as ferments ever do when planted in the proper soil and produce results widely disproportionate to the abundance of the germ.

We may safely presume that one in every hundred persons is tubercular. On the continent of Europe the estimates are one in sixty. Startling as is this fact, the pathologic reports are much more so. At the Berlin pathologic institute every workingman who dies after thirty shows signs of having had tuberculosis. In Zürich, Naegaele, in 500 consecutive autopsies found evidence of tuberculosis in 490 cases. This evidence rested mainly on the presence of caseous bronchial glands, scars in the pulmonary tissue and thickened pleural membranes. When the lesions were not coarse and readily seen he searched for them microscopically. Naturally this work was very exhaustive and painstaking. Yet the mortality reports of Zürich differ but little from the reports of other cities on the continent similarly situated and administered. The autopsies were in general hospitals where are found the poor and ill-cared-for classes known to be most subject to the disease. It is not safe, therefore, to conclude that 100 per cent. of the citizens of Zürich are tubercular, but it is fair to conclude that there are classes of society which are almost entirely tubercular. How far this latent tuberculosis has spread is impossible to know and speculation upon it passes but little beyond generalizations. The fact, however, that tuberculosis is more widely spread than even physicians have recognized, and that it is preventable and curable should awaken the liveliest interest of all men. That mankind has lived and reaped its magnificent rewards in spite of it is no solace. Mankind never before faced the peril as it does today, never were the throngs so dense and living so unwholesome as in the crowded tenement districts of great cities of today. Never were conditions which make for tuberculosis, so rife as today. The very life we lead, the physical and nervous strain we endure, the tainted and devitalized air we breathe, the close contact on trains, streets and public places to which we are subjected were unknown to man in his early nomadic, colonial and agricultural periods. It will be necessary for us to recognize that conditions have changed and that readjustment is necessary or the cataclasm will come that has ever followed evolutionary changes from the geologic beginnings of life.

The great question of the prevention of the disease, considered from the standpoint of correct living in its countless aspects and variations involves countless readjustments, countless modifications in the matter of eating, sleeping, working and personal relationship, and all our methods of living are so largely matters of habit and tradition that it will be impossible to effect any sudden modification in them. Change in them will be slow and almost imperceptible.

Prevention can, however, be discussed from the standpoint of the sputum question most pointedly and effectively. Were men to stop spitting, tuberculosis might disappear in one generation. There are now in many cities ordinances against this nuisance. Many people little realize, I think, how these ordinances are misunderstood. I have talked with many persons about them and but seldom have found any one who comprehends their true purport. An intelligent foreman in a large mill admitted to me that he thought that the anti-sputum crusade was inspired by over-nice people who were annoyed by the accumulations on the sidewalks and in cars. He had absolutely no realization of the fact that sputum was often poisonous, that his wife dragged it into her house on her skirts and spread it over the carpets, whence it stuck to the childrens' toys and exposed them to tuberculosis. He had previously smiled quietly at this sign of municipal purity, his friends, he said, were rather amused at it and thought but little of it one way or the other. After he understood the motive of this movement he said: "If the workingmen knew this, they would not spit for they are the very ones who suffer most from it." He immediately spoke to the superintendent of the works, who was a man of comprehension and action, and was at once commissioned to stop the expectoration by the men, especially the molders, who constantly spit into the sand they work with their hands into molds. He also was directed to take those workmen who had persistent cough to a physician, and separate the tubercular as much as possible in a room by themselves. It is not enough, therefore, to pass an ordinance, it must be accompanied by some plan of education of the public. I have met clergymen and teachers who were as ignorant of this matter as the foreman; their sensibilities were finer, their disgust greater, but their ignorance was the same.

In Phœnix and Albuquerque the expectoration on the streets, sidewalks, and in the parks, notwithstanding ordinances against it, is a menace to the health of the community. A short time since a physician from the latter city wrote me that he had recently seen four cases of tuberculosis among the native Mexicans who formerly were considered immune. The indigenous cases of the disease among the citizens of Phœnix are now seen sufficiently often to excite more than a passing interest. Two months ago the municipality of Phœnix began to enforce the ordinance as far as sidewalks are concerned. But in the city park, in the center of the town, are seen many invalids with small pools of sputum at their side. In February a patient wrote me begging to be allowed to change her residence as she feared reinfection. Such facts as these should force the conviction that the disease is spread by the carelessness of its victims. A thorough realization of this fact would certainly cause the great majority of the race to readjust itself to it. In sanatoria, to expectorate on the floor or ground is an offense rendering the culprit liable to expulsion from the institution; this penalty is rigidly enforced. To abstain from this habit is one thing learned in these places, and the patients who go from them are the best missionaries.

Brehmer instituted courses of lectures on health in his sanatorium and his plan has often been followed, thus a sanatorium is not only a place in which to cure the patient, but also a place in which to educate him. The objects, then, of a sanatorium are manifold. Primarily it is to cure a disease. It is also a place where the afflicted can learn the proper care of their own bodies. It also stands as a reminder to those who are well, of the danger confronting them and opens their eyes and hearts to the peculiar sufferings that menace their fellows. The great impetus towards the founding of these institutions comes from Germany, the source of many of our ideas in medical science. Seven years ago, in 1896, the German central committee for the erection of sanatoria for the poor came into existence. The Empress became protectress of the committee and the chancellor of the Empire its honorary president. General Von Panwitz, surgeon general of the army, was and is still its general secretary. Notables from all classes of society are enrolled among the members of the committee, which is a large, strong and influential body. There are three things that led to the formation of the committee:

1. The fact that of all workingmen that die during their working period one-third die of tuberculosis.
2. The proof that in its first stage tuberculosis is curable.
3. That the funds for prosecuting the work were available because of the invalid pension laws.

In the early discussions of the subject the education of the public to the dangers and necessities of the situation was considered. It soon was apparent that this education would fail of its effect if there was not practical application of the question. The application that was likely to be the most prompt in its relief and most far-reaching in its results was the sanatorium. At that time there were sanatoria for the poor in Germany at Ruppertshaim, Blankenfelde and Apenrade; these had been built and maintained by private benefactions. Now there are a hundred sanatoria and others in contemplation. The greatest number are in western and central Germany, where there is the greatest industrial activity, and where the population is the most dense. Near 13,000 patients can be cared for at present in the institutions of that country. The great motive that has animated this movement is the belief that the best place for a tubercular patient in the first stage is a sanatorium and that the prospects are that he will be cured there in a few months.

It is interesting at this juncture when the great commonwealth of Ohio is contemplating this same question to analyze the basis of this belief and discover if possible the grounds of its truth and acceptance. The medical directors of the private sanatoria constantly asserted that the percentages of improvements in phthisical patients was much greater in the closed institutions, as sanatoria came to be called in contradistinction to hotels at bath and climatic resorts where there is no direct medical supervision. The facts can now be more thoroughly studied because of the enormous multiplicationof observed cases. From time immemorial the sick have gone to certain noted places for relief of their ills by baths, air, diet and various remedial agencies. There is still standing at Aix-les-Bains in Savoy a bath and room with abundance of hot and cold water that was used by the Romans and is still serviceable. Throughout the continent innumerable hotels are frequented in the mountain resorts for health purposes. And in Davos more seek these hotels or kurhaüser than seek the sanatoria. Throughout Virginia, at White Sulphur, Hot Springs, Stockbridge, Alum and Old Sweet there are hotels some of which pass under the name of sanatoria. At Saratoga and Richfield, Mount Clemens, Cambridgeboro, such institutions are found, but there the patient follows his own fancy or advices from his own physician and is under no surveillance. These are the open institutions. A true sanatorium is a scientific institution directed by a medical officer who has the control of his patients as the medical staff has in a hospital. He alone controls the sleeping and waking hours, the amount of rest and activity, the diet, hours for meals, the ventilation, the time passed indoors and without, the time and amount and character of exercise. The patient is within bounds in a closed institution and cannot leave without special permission. Naturally from the open institution there can come no statistics for no records are kept. Our information proceeds from the closed institutions, the true sanatoria. Statistics, though not always accurate, have a certain value when rightly interpreted. No one is a better interpreter of his own statistics than the maker himself. Thus some medical directors give out no statistics but simply their general conclusions because the bare figures are misleading.

In discussing the question we divide the clinical history of the disease into three stages:

First stage, in which a small part only of a lobe is involved.

Second stage, in which an entire lobe is involved, and the

Third stage, in which there is extensive involvment of the lungs with cavities and hectic and serious mixed infections.

It is found that only the first stage cases are cured, though all cases may be more or less benefited. In twenty-five sanatoria which have published their records I have been able to show that eighty per cent. left the institution practically cured. It is of course well understood what is meant by practically cured; we can never know when a tubercular patient is absolutely cured. In many of those who present no physical signs of the disease whatsoever, tubercular glands are found at autopsy. Recently I had the opportunity of making an interesting observation on a medical student, who considered himself well, and who had from mere curiosity examined his sputum and found tubercle bacilli; repeated subsequent examination confirmed the original findings and the most careful examination of the chest and throat failed to show any evidences of disease. Such instances are undoubtedly not uncommon and pass unnoticed, especially when the bacteriological examination renders no assistance. Great caution is therefore necessary in speaking of cured cases and the statement of cure must be taken in a conventional sense without carrying with it absolute scientific accuracy. A recovery with this understanding means that the patient shows no evidence of disease on a physical examination, that he has no fever, no acceleration of pulse, no cough or expectoration and no bacilli. In one who is practically cured there will still be noticeable in the chest slight changes, but otherwise there will be no evidence of disease, no fever, cough, expectoration or bacilli. Such persons are able to do a full day's work if they have retained their strength, some, however, find that the hours of labor must be curtailed by two or four hours. It is customary in well-controlled institutions to indicate to the patient when he leaves (and give him a certificate to the same effect) how many hours he should work.

On this basis from 30 per cent. to 40 per cent. of first-stage cases leave the institutions cured, and 40 per cent. to 50 per cent. leave practically cured. Statistics will vary in different institutions for various reasons. In the sanatorium for the Baden railway employes in Nordrach vallev, near Biberach-Zell, many cases improve rapidly, yet the institution is very simple in its arrangement, and most of the supervision is by nurses while physicians from a neighboring sanatorium have the medical direction. The rapid improvement here is due to the fact that the cases are sent early. The medical oversight of the employes is close, and the railway management philanthropic. These men know that the haven is open to them if they fail in health and they take advantage of it; advanced cases are not received and consequently the percentage of recoveries is very high. The men return to their posts in the railway service and take up their work again and every effort is made to protect them.

After a cured case returns to his previous mode of living and labor he is in much more danger than his fellows who have never been ill.

An effort has been made to determine the permanence of the cure by reports from patients two or three years after their dismissal. It is difficult to follow a patient after he thinks he has recovered. His own report on his case is not sufficient and he is loath to get one from a physician. Still less often does he return to the institution where his records are kept to be examined by those who are familiar with his case. The only practical fact that can be obtained concerns the ability of the man to work at the time reported. Schulze has given out the following table from Albertsberg, a sanatorium for men situated in the mountains of Saxony near Auerbach, not far from the confines of Bohemia: First stage patients dismissed 87 per cent. were capable of working in one year, 76 per cent. in two years and 70 per cent. in three years.

The German government bureau of statistics of treatment in Folks-Sanatoria has collated reports from several institutions and has tabaulated the following figures. In a hundred patients discharged in 1896, 68 required no care and were able to work in 1897. Forty-three were still effective in 1898, 29 in 1899 and 28 in 1900. It appears from these figures, which probably are reliable, that those who live three years after undergoing treatment are likely to live longer, and conserve their health for many years. Twenty-nine per cent. were well three years after their discharge as patients and 28 per cent. were well four years after. It is fair, therefore, to state that about 30 per cent. were permanently cured. From some of the private sanatoria the reports are much more encouraging. Turban, of

Davos, states that 95 per cent. of his early first-stage cases are cured and a large proportion remain so. First-stage cases in individuals who previously had been well and had no taint or impediment and ate well he thinks almost always get well. Turban conducts his institution on rigid scientific lines notwithstanding the fact that his patrons are from the favored classes. His patients remain with him usually six months; they are constantly under his control and act constantly under his advice. It is reasonable to suppose that his results are more favorable in early cases, than those of the Folk's sanatoria. It is altogether likely that his patients but seldom work after leaving his institution and that they continue their cure in some pleasant resort for months afterwards, taking unusual precaution against fatigue, vitiated air, strain and exposure to the transient infections. Few only of mankind are so favorably situated that they can reap the best fruits of life all the time so that statistics drawn from the few are not reliable data for the masses. I think, however, that it will be proven that between 30 and 50 per cent. of early cases will be practically well three years after their attack.

In Sulzhayn it is reported that since 1898, 41 per cent. of the discharged patients have worked uninterruptedly for three years. Many of the patients disappear and no report from them is possible; those that have a return of their trouble and those that live near the sanatorium are more likely to report and thus the unfavorable cases might be disproportionately large. Those who fear ill-health keep up their connection with the benefit societies which are also in close communication with the sanatoria. These, therefore, figure in the statistics. If all cases could be recorded of the Sulzhayn patient it is likely that the per cent. of recoveries would be higher than 41.

From Ludenscheid the reports are even more favorable: Of the 193 patients discharged in 1898, 65 per cent. were well and working in 1901. Of 241 patients discharged in 1899 74 per cent. were well and working in 1901. We all know that men differ in the conscientiousness and accuracy of their observation. The temptation to fit the facts to preconceived ideas is very great and a medical chief of a sanatorium, especially, if he has decided on such a position as his vocation will wish to make a good showing for his institution as well as reputation for himself. Notwithstanding this, a critical analysis of the work done in sanatoria for tuberculosis during the last seven years proves that a large number of supposedly incurable persons are cured and saved to their families and the state. There is, therefore, no doubt as to the value of such institutions to the commonwealth.

Asylums are instruments of mercy whose mission it is to alleviate suffering, soften the hearts of men and temper the asperities of life. They make for sweetness and light. Sanatoria are investments that yield their returns by giving back citizens to the state, skilled artizans to the industries and strength to the whole community, they make for national virility. The patient leaves such an institution not only cured, but also enlightened as to the pit-falls that entrapped him; he avoids these in the future and points them out to others. When such knowledge is the result of personal experience it is infinitely effective. Indeed such knowledge is most difficult to teach and must have living, warm exponents—the written word is too cold. It must have living missionaries who have been through the fires of affliction in order that it may become the common lore of all men. No one seeks to avoid an unperceived peril. I think that the value of such missionaries in the field cannot be overestimated.

It is a well established fact that people in the neighborhood of a sanatorium are more apt to be free from disease because of their greater knowledge of the laws of prevention. The presence of an institution in their midst is a source of information. There is no proof that a sanatorium ever injured the condition of a town or the health of a community. Sanatoria are not sources of contagion, and there is no reason why any community should object to their presence. Joel says that although 7000 cases have passed through Römpler's establishment in Goerbersdorf there has not been one case of infection among the attendants. Turban states that while 3000 have been treated in his institution there has been but one case that could with reason be referred to direct infection. If this is true within the institutions how much more true must it be of the neighboring town. One uncontrolled, untrained patient practicing the individual cure in his own house and paying and receiving visits to and from his friends is more dangerous to the community than any number of patients in a well-regulated sanatorium suitably situated, surrounded and patrolled. The lessons in cleanliness and care, the discipline and training in the sanatorium will permeate the neighboring community and lift the standard of its health, rather than endanger it. As a moral influence such an institution works mightily for good by relieving the family of its unjust burden and lifting dispair from the hearts of the victims. It is an institution of hope as well as of health.

There can be no doubt that sanatoria are needed and that they are a benefit to the people. The question of their location in Ohio may come up for solution. A discussion of an ideal site would involve the consideration of climate, altitude, clearness, dryness and purity of air, freedom from dust, grounds, trees, sunshine, proper exposure, accessibility, construction, equipment, local advantages, local needs, economy of administration and medical supervision.

That climate has its advantages in the life of the tubercular is true. But these advantages are of even greater value to the convalescent who has taken up his life among his fellows again. Patients in a sanatorium make their greatest improvement in winter and progress almost equally well in a great variety of climates, providing they are well protected from winds. In the immediate vicinity of Berlin there are three large and successful institutions, one of these when completed will accommodate 1500 inmates. The climate does not differ very much from the climate of Ohio. There are frequent rains, and many cloudy days and the winter is not as clear and unbroken as here. The local advantages of transportation and administration and the increased interest of the people of the vicinity offset the slight disadvantages of an uneven climate. There are other than climatic reasons, that make the winter cure so successful. During the inclement weather of the colder months patients at home take cold easily, they are gradually withdrawn from the fresh, invigorating air and they become increasingly sensitive to almost imperceptible changes. They cough more, rest less, eat less, and gradually exercise less and become feverish. In a sanatorium with daily medical supervision all these possibilities are foreseen and prevented and the patients do not take cold and have the repeated irritation of the sensitive areas in their lungs. But even those who remain in an institution winter and summer experience the greatest improvement in the former season; there is a tonic in the cold that promotes a well being of the whole organism to its peripheral cell. The most successful institutions in Europe, those to whom the phthisio-therapeutist turns for his inspiration are in the Rhenish provinces, where the winter climate is not especially inviting. Bennett, of Mentone, one of the pioneers in climatology, never restrained his patients from walking in the rain; the same reasons that make the races of the temperate regions the most vigorous of the earth will work towards raising the strength of many invalids, when properly controlled. Change of climate has a great value, and change is often beneficial to the body and soul, made sordid and apathetic by routine. The rich may well seek a distant sanitary temporary home when they are ill, but the poor and those of limited experience will find a similar stimulant in the country near their home. Travel and separation is furthermore depressing to them. If one can be cured in his own climate his cure will be more likely to be permanent. This probably explains the high percentage of apparently permanently cured cases of some of the local sanatoria, for example Sulzhayn. It may not be possible to demonstrate this proposition with figures, but there are many things that point to its truth. Wolf, of Reiboldsgrün, strives continually along the lines suggested by this idea. He believes that the patient's life during his last months in the sanatorium should resemble his home life as much as possible so that there will be only an imperceptible break between his sanatory and his own home. These are urgent reasons why a sanatorium should be placed in the centers of population, notwithstanding the climate; as has been indicated they are educators to the community in which they exist. Local influence will build them where that influence prevails and the land will have more of these agencies with which to re-strengthen itself.

An altitude of 3000 to 5000 feet is the best for an ideal institution. But the claim that tubercular patients lose their fever and begin to improve in high altitudes sooner is not true. In the sanatoria of Holland the newly-received patient becomes afebrile in two or three weeks. At Hohenhonnef, at an altitude of 500 feet on the right bank of the Rhine near Bonn, feverish patients improve as rapidly as at Davos. The general statistics are quite as favorable. Much of the good, however, that has come to this institution is due to its medical director, Meissen. In a gross way the advantages are equally divided between high and low altitudes while the patient is under supervision. Perhaps the most striking factor in the influence of altitude is its effect on the blood. The red blood cells apparently increase in number in the peripheral circulation as the individual rises above the sea level. That this change comes very rapidly is shown by Gaule's experiments in blood counting in a balloon last summer. He counted his own blood during a balloon ascension and found that at 7000 feet the blood count was 8,000,000. The presence of a large number of nucleated red cells seems to prove that he was not deceived by a physiological error. The high altitude advocates have made much of these observations, claiming that metabolism is more active because there must be more oxygen in the circulating fluids, and although the blood reaches its norm a few hours after the individual descends to a lower level, the patient has whatever value there is in this increase while he is at the higher elevation. But the arguments for the native climate speak also for the native altitude.

In Switzerland, where great changes of level are in such close proximity and where there are so many desirable resorts at all levels, the physician constantly directs those who can to change the altitude. If the fever persists at a high altitude the patient is sent lower. If the cough persists in the valleys he is sent to the mountains. He is directed to live where he breathes the easiest. Huguenin believes in varying the surroundings of his patients and sends them here and there. As one becomes stationary he is sent higher or lower as the lung involvment indicates, but we are now trenching on refinements of thereapeutics. The air should be clear, pure, moderately dry and as free from dust and impurities as possible. Such an atmosphere is only found remote from railroads, factories and even from the main thoroughfares. Tubercular patients are very susceptible to vitiated air and a visit to a neighboring village, especially if one remains over night, is very apt to be followed by a "cold" which is in reality an infection or a direct irritation. In Cleveland a strong land breeze not infrequently brings from the south a pungent, irritating odor. Curiously enough no one in authority has ever been able to track this odor to its source, although it always takes the same direct path through the city. The day following the night when this noxious smell permeates the unfortunate quarter many individuals suffer from sore throat and signs of incipient influenza. Such experiences would be fatal to a health institution.

Trees filter the air, catch the dust, vitalize and deodorize slowly-moving air currents and should surround a health resort. Pine trees are accounted among the desirable adjuncts and they doubtless have their advantages. Their balsamic emanations are agreeable, and gratefully stimulating to a feeble lung. A sanatorium should be surrounded by a pine grove when possible, at least on the north, east and west side, that the force of the winds may be broken and that the southern elevation of the building may be exposed for the longest possible period to the sun, the influence of which cannot be overestimated.

Our cities are more and more deprived each year of the beneficence of the great solar body. But within fifteen miles of any of our cities one can have the maximum of sun shining days of this climate. Of course not comparable are these in number to the sunny days of Colorado, where one glorious day follows another for months. In the upper Engadine the sun shines with such splendor and with such wholesome warmth that one can often breakfast out on the snow in mid winter. When one is thoroughly convalescent there are no more invigorating and delightful spots, none more interesting and diverting than the high perched towns in the valley of the Imm. So important to many is the value of sunshine that the founders of Schatzalp for four years made meteorological notes on two places about Davos before deciding which one had the advantage of sunshine and wind currents. The amount of bright sunlight in any country district of this state is not so much inferior to that of mountainous climate as to prejudice the usefulness of a sanatorium. The highways are so often dusty that an institution should, if possible, be placed on the southern side of a hill that faces away from the thoroughfare which is reached in a circuitous way. The hill and trees will block the winds, catch the dust and filter a balmy tempered air for the afflicted ones. So much time is spent in the open by the patient that a good southern exposure is very desirable, except where strong southwest winds prevail. A building so placed will give the maximum of sunshine with a minimum of draught. A neighboring hill is also an advantage because of the opportunity it offers for gradient paths, along which to send convalescent patients when the time has come to strengthen the heart and muscles. The grounds should be gently rolling and provided with paths of many kinds; sunny, shaded, straight, ascending, circular, steep and sloping. Park effects and well-kept groves always add to the attractiveness of any place, but these luxuries are the last to come. With lung patients the psychical effect of beautiful surroundings must be considered. Such patients remain largely from their own desire and every effort should be made to urge them to prolong their residence.

A sanatorium should never be built in a city, but it should be easily accessible to the great centers. Where population is most dense, labor most strenuous, prisons most numerous and dwellings badly ventilated, there tuberculosis will be endemic. A house in which a consumptive dies is a source of infection to its next occupant. To make transportation easy for the poor or economical for the state the sanatorium should be accessible to the greatest number. It should also be convenient of access to friends of the patient, and to friends of the institution, in order to relieve the inmates of the tedium of loneliness. Whatever tends towards the comfort and happiness of the patient tends to prolong his residence in the sanatorium. The longer the patient remains separated from his home the greater the protection of his family from the disease. It is very desirable to have in conjunction with the sanatorium a convalescent station, where those who are still contagious when they leave the sanatorium can live and work perhaps for a few months longer. Residence at such a home or farm would prolong the cure, continue the isolation, strengthen the body, protect the family and the community and teach the individual a new and more healthful vocation. The French have the idea of farms for tubercular children and have many agricultural colonies where children go after they leave the maratime stations to which they are first sent from the cities.

Such stations have undoubtedly had their influence in reducing the percentage of tuberculosis in Germany. They influence the morals of the disease, if we may so speak. In a disease so widely distributed as tuberculosis and so intimately connected with the national life of a people there are countless hygienic problems that must be met. The destruction of a microbe is the last and possibly one of the least of the problems. The living that makes for cleanliness that is next to Godliness is what must be taught the people.

In the construction of sanatoria the tendency is to abandon the large, open ward and to develop the single-room and small-ward system. Where several rooms are at the disposal of the director the patients can be classified. Those who are bacillus-free can be grouped in one room; a coughing patient or a noisy sleeper or one suddenly falling ill can be kept by himself much to his own comfort and that of his fellows. All the rooms should face the south and catch the sun the greatest number of hours possible and the connecting corridor and service rooms should be on the north side. There should be large assembly rooms for the occasional meeting of the inmates, accommodations for physicians and nurses, and bath rooms so equipped that hydrotherapeutics could be used; there ought also to be cloak rooms, and shoe rooms, where all outside clothing should be left. By this means the atmosphere in the large rooms is kept much more agreeable, and much more wholesome. Besides his bed, each patient should have a wardrobe, chair, toilet rack, napkin cover and blanket, cap and furs, if possible, for the winter cure in the open air. Each should preserve carefully his personal articles and everything should be sterilized carefully before he leaves.

The internal arrangement of the building should be simple, open, and accessible to air and light. All surfaces should be flat and the angles rounded, there should be no ridges, projections or re-entrant angles or carved furniture to catch the dust; the upholstering should be with cushions that can easily be removed. The dishes as well should be simple, with as few angles and grooves as possible so that they may the easier be cleaned. There should be no curtains, covers or hangings. To be thus severe and yet treat the interior so that the general effect will be agreeable is by no means an easy task. It has been done at Wehrawald in the Black Forest with remarkable skill and success, so that the sanatorium at Todtmoos is a model of beauty and practical usefulness. Every article in this institution is made from original designs. Even the forks are three-tined and the kitchen implements and table service have rounded interiors and smooth exteriors. The drawers of the bureaus are cleated so that there are no dust catching small corners. The idea of prevention and asepsis has been carried out in every possible way and in the most ingenious manner.

The most effective system of ventilation for a sanatorium is by the natural, simple method of open windows, with the possible exception of the dining room and kitchen. The heating problem is always a sphynx. Radiators are always dust collectors. In a state sanatorium the heating apparatus may well be kept from the sleeping rooms because if heated the patients will be too apt to remain in their rooms, and the heat from the corridors warms the rooms sufficiently. The day rooms and corridors should, of course, be comfortable, and a few bed rooms, reserved for the very sick, should also be heated.

To protect the neighborhood and to avoid polluting the streams or grounds the drainage should be especially well guarded, and the sputum of the patient completly destroyed. Every patient should use a sputum flask after the Dettweiler model; the contents of these flasks are usually disinfected and thrown into the drains. At Alland the sterilized contents are thrown onto peat and the turf then burned in a special furnace. This plan which orginated with Schrötter is the most effective way of treating this difficult question. The disinfection of the flask should be done by a special attendant as at Liberty, and not left to the possible carelessness of the patient as is often from necessity the case.

The choice of patients for a sanatorium is a vexed question and has annoyed many a committee. The idea that a sanatorium is a curing station and not an asylum must be ever in mind and incurables ought not to be sent there. There should be two departments established in two separate buildings, one for first-stage and promising second-stage cases, and one for advanced second-stage and favorable third-stage cases. If possible there should be accommodation in these institutions for all such applicants. The tubercular patient is optimistic, it is cruel to destroy his optimism, and since so much has been done for tuberculosis in its incipiency it is well worth our while to study the disease in its chronic form. Nothing should be allowed to prevent serious and exhaustive study of the advanced cases, where mixed infections make so composite a picture. But let the patients be separated—the curable from the supposedly incurable; let one department be exclusively reserved as a curing station, and when its annual reports show that 80, 70, or even 50 per cent. of its inmates have been cured, the eyes of the profession and the community will be opened, their minds quickened and they will understand. The portion of the institution devoted to the later-stage cases we must as yet consider in the light of an asylum. Its maintenance, however, is of the greatest importance; it protects the community from active sources of infection, it offers opportunity for medical research, it makes for the comfort of the suffering ones, and if any of its inmates are at any time accounted worthy of graduation into the curing station they leave behind them the incomparable legacy of hope.

Complicating diseases so retard the cure of tuberculosis that persons thus affected should but rarely be received. Those having diabetes, pernicious neurasthenia, aneurism, severe eczema, swellings, severe surgical troubles, wounds, badly compensated hearts, alcoholism and advanced nervous affections complicate the nursing and internal management, transform the sanatorium into a hospital and divert the aim of the institution. All county hospitals should have tubercular wards where the sick should be treated on sanatorium principles.

Physicians must be better informed, medical schools should train students more efficiently in physical diagnosis, and in the general and generous handling of disease and inculcate more thoroughly the basic principles of treatment of chronic disorders; those principles which we are too apt to think come only with ripe experience. Physicians must know the object of the sanatorium, and learn to detect tuberculosis in its incipiency and select and direct the cases advisedly. Nothing is gained for the sanatorium idea if the institution becomes an asylum. And the physicians must prevent this misfortune. Friedrichsheim in Baden was opened as a healing house, but in the first year 67 per cent. of the inmates were in the third stage; it seemed as if the people were waiting to fill it with incurables. Rumpf has made repeated efforts to direct cases to their proper places with but small success. There should be an advisory central committee to direct the whole movement, to be in touch with every health board, to detect the needs and suggest aids, to plan a campaign in fact in this conflict with tuberculosis.

The sanatorium should be in charge of a physician who acts as its medical director, and manages the institution. He must be well trained in bacteriological science and should have had general hospital experience at an interne. One man can most economically handle fiftv patients. The institution should grow in multiples of fifty. Seventy patients demand two men who could easily care for a hundred patients. Their duties are not perfunctory. The sputum of each patient must be repeatedly examined, chest examination must be made at least every three weeks, careful notes must be kept. Every patient must be seen and directed once a day and seen twice a day. Discipline must be rigidly enforced. The idle life of the patient develops peculiar instincts, the men and women must have different rest and recreation hours and all rules of treatment, including the rest cure, baths, exercise, disinfection and paroles must be carried out. The little cabals of the rest galleries must often be met by vested authority, and the weariness and dejection induced by a long-delayed cure must be met by cheerful courage. Thus a medical director should have gifts as well as wisdom and tact as well as talent. He has need of the faculties of a composite man. He is developed best in a sanatorium and should serve first as an assistant. The whole sanatorium movement is new and an ideal medical director is not easily obtainable. Should a large sanatorium be contemplated it ought to have a medical superintendent and the treatment should be conducted by physicians on the plan of resident officers in a large hospital. The physician makes the sanatorium much more certainly than the superintendent makes the hospital. A sanatorium will fail largely of its purpose if the medical director is incapable, but a hospital would continue its usefulness through its medical staff though it might suffer financially from the incapacity of its executive officer. It is peculiarly the medical director that gives reputation to an institution for tuberculosis.

There are so many tubercular patients (presumably 50,000 in Ohio), that many sanatoria and special hospital wards are necessary. There is need of careful judgment in construction and management of the first institution. If it can be shown that 100 or 200 patients can be assisted and cured at not too great a cost the way is open to further growth. If the first institution is fosilized in stone further development will be delayed.

The laboring classes are interested in the sanatorium idea as far as they are familiar with it, for there is no place for a poor man to go when once he becomes a victim to Koch's bacillus. I believe that auxiliary societies with large membership can be formed that would greatly aid this movement, when once it has been proven beneficial and praiseworthy. A member of one of these societies could be given preferred privileges in the sanatorium with which he is affiliated, and made to feel that there is a place for him when the hour comes which elects him from the hundred as the one marked for the contagion. To be poor and tubercular is to die, if the sanatorium or its methods are not made available to the people. When once the campaign against tuberculosis is directed by the state through its board of health or a central committee, auxiliary societies would arise which would be ready to supplement the state in the maintainance of the institutions if their members could thereby see a possible advantage to themselves.

The progress of a patient in a sanatorium is an exposé of sanatorium therapy and can be but cursorily touched here. The fever that most patients have on arrival merits immediate attention. The nature of fever is still a secret to every one. One of its most constant phenomena is increased bodily heat. There are certain destructive changes that accompany pyrexia, and fever is the conflict between the persisting forces of the body and threatening toxins; when it ceases the life forces have triumphed, when it persists the body succombs.

Long-continued fever is dangerous. Fever induces a great sensitiveness of the body that shows itself in the tuberculous in a variety of ways. On change of air, from warm to cold or cold to warm, we observe the cough, a hacking, useless cough that drives away sleep, comfort, and even strength, makes the chest ache, exhausts the muscles and brings wretchedness and weariness. We observe palpitation of the heart, signs of cardiac weakness, morning collapse, the blueness of the mucous membrane and finger nails, early fatigue, and tendency to sweating, gastro-intestinal disturbances and anorexia, meteorism with absence of organic changes of the digestve apparatus, the appearance of an easily excitable nervous system (neurasthenic symptoms), heat, headache and apathy. Persistent, abnormal heat or something coexisting with it plays an important role in the etiology of these symptoms which must be considered toxic and not simply signs of weakness. Even after the fever has disappeared it may return after mental strain, eye strain, prolonged reading, walking or over exercise. In truth, this easily induced fever is not an inconsiderable diagnostic point in the detection of the *habitus phthisicus*.

The patient should take his temperature four times a day, especially during the fever, and after unusual mental or physical exercise when afebrile. The slightest pyrexia is a sign to halt and should be respected. When a patient enters a sanatorium he usually has fever. He should at once be put to bed and rest absolutely recumbent for two or three weeks if necessary. If the fever is due to the journey it will subside in a few days. In first-stage cases the temperature universally disappears usually in two or three weeks. In mixed infection cases of the second and third stages the temperature may reman continually at normal. During the fever, in the first stage, the patient is kept in bed in a sunny room with the windows open. His reading and mental exercise are reduced to a minimum. His diet is soft, simple, varied and wholesome. Gradually as the fever falls the cough ceases, the signs of heart feebleness diminish, the gastric disturbances subside, his color improves, and the neurasthenia is less pronounced.

He is then ready to continue his cure in the air galleries under the trees. For six or ten hours a day he reclines on his couch, well protected from the cold or winds. He can read, write and converse a portion of the time, but during certain hours he must preserve complete rest and quiet. His couch should be comfortable and his covers warm. He continues this rest cure for three months. Of course the case must be individualized, and carefully graduated exercises introduced as the symptoms improve and strength returns, but a long period of rest is the rule and generally enforced.

Five times a day the patient goes to the dining room for his regular and supplemental meals. This room should be attractive and the menu well and carefully served. It is necessary that the table be made agreeable in every way in order that appetite be quickened, digestion aided and eating become a satisfaction. Appetite returns with the decline of the fever and is increased by the life in the open air. Patients are encouraged to eat and their weight is periodically taken and an average increase of ten pounds in a few months is not at all unusual. The kitchen should be well administered and the food the best the institution can afford, the table should be not only abundant but enticing. Every one eats with greater relish if he is served with small portions and in an inviting manner. All the devices known to successful entertainers should in a simple way be employed in making the menu and in embellishing the table and its surroundings. As the patient becomes less neurasthenic he can eat with less distress and very soon after he begins the rest cure out-of-doors his indigestion vanishes and he forgets his qualms and terrors of eating. The patient is not forced to eat but is induced to eat. A poor eater has a bad prognosis. Some individuals never have eaten well and when they contract tuberculosis their tendency is usually downward. The supersensitiveness of the turberculous makes him over-responsive to any strain, and fever, cough, vaso-motor, depression and neurasthenic symptoms immediately reappear. Hence the need of a constant supervision by the medical officer. Air, food and rest are the fundamental agents in the sanatorium therapy, but they are combined and developed in infinite permutations.

One proof of the improvement of patients in a sanatorium is the fact that many of them become free from bacilli before they leave. Three-fourths usually are thus aseptic and in some institutions a much larger percentage. However, on this point I incline to the opinion that this apparent improvement is due to the absence of cough and expectoration—and where expectoration remains a very careful search will generally reveal the presence of the bacillus. In strength, weight, vigor, spirits and working capacity, there is always a well-marked improvement in early cases. Moreover the gain in the knowledge of hygienic self-protection, of the true ways of living, of the dangers of unwholesome occupations and habits is invaluable to every one who has experienced the discipline and care of sanatorium life. I doubt if a patient could carry on successfully the home treatment of tuberculosis in his own house if he had not had at least a month's training within the precincts of a sanatorium.

It must not be imagined that the treatment consists in the handling of the abstraction phthisis. The febrile will be kept longer in bed, the fragile and delicate who are poor feeders will require a more careful diet and more cautious directions. Those with greater resistence and tendency to sclerosis of areas in the lungs, and who have a more robust body can be urged the sooner to climb the sloping hill sides and train again their muscles into use. Only an accomplished observer can thus follow his patients with persistency and success. Let us not repeat the experiment of the state insane asylums where one man controls a thousand patients, manages a monster institution and his multifarious political duties besides.

As Baker Brown was struggling with the intricacies of laparotomy in its developing period he said: "It is the peritonitis that beats us!" In tuberculosis it is the early diagnosis that beats us. When physicians thoroughly grasp this fact and develop their skill and will to act upon it the advanced posts of the enemy in this conflict will be taken. When the invalids will go to the sanatoria as in Germany, or to the maratime stations as in France, or to the higher Alps as in Switzerland, or the nursing homes in the country districts as in England, or even as in America to the great indefinite West, then will the first battle be won, the first stronghold carried.

LEA'S SERIES OF MEDICAL EPITOMES. An Epitome of Physiology for Students and Practitioners of Medicine. By Theodore C. Guenther, M. D., of the Norwegian Hospital, Brooklyn, and Augustus E. Guenther, B. S., formerly Assistant in Physiology in the University of Michigan, Ann Arbor. In one 12mo volume of 250 pages, with 57 engravings. Cloth, $1.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

This is a compact little treatise, free from discursive matter, but giving the established facts of physiology as developed at the present day. It is intended for and especially adapted to the needs of medical and dental students, but it will also prove of value to the practitioner who may wish to post himself on the most recent findings on the subject.

No one will deny the value of epitomization, if well done, and while this compendious little work is by no means intended to take the place of the large volumes on physiology, it certainly provides a handy and legitimate help to a knowledge of essentials to which a thorough understanding of details may be easily added. M.

REMARKS CONCERNING THE DIAGNOSIS OF RECENTLY ACQUIRED SYPHILIS.*

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The first symptom of acquired syphilis is the specific sore which develops at the point of inoculation and constitutes the chief manifestation of the primary stage. Soon after its appearance it assumes, in the majority of cases, characteristic sclerosis and later the lymphatic glands in immediate relationship enlarge.

Toward the close of the primary stage the blood shows some increase in the number of white corpuscles and diminution of the red, and the glands of more remote parts become involved and there is pain, especially at night, in the periosteum of the long bones and of the cranium, also in the joints and muscles, all of which, as well as jaundice and albumenuria, occur before the general cutaneous eruption—the chief symptom of the secondary stage.

Fever, which may be slight enough to be overlooked in the well-nourished, or reach one hundred and three degrees Fahrenheit in the debilitated, generally ushers in the eruption.

The macular syphilide appears first, developing upon the chest, and is sufficient evidence of the character of the malady.

Mucous patches and sore throat usually follow the eruption, and like scaly scalp and loss of hair, are additional symptoms.

The typical chancre is a single, non-inflammatory, indolent, painless lesion, at first a small, clean-cut, cutaneous segment about the size of a grain of barley, without raised or undermined edges, with a shining red or gray floor, which secretes a barely appreciable quantity of serum and rarely, even when fully developed, exceeds the dime in size. As it matures, erosion increases and sclerosis becomes apparent upon polar palpation.

If every chancre were typical, diagnosis would be easy, but when it is remembered that any of the six varieties from local or constitutional influences, may be atypical from the beginning, the chances for error can be readily appreciated.

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* Read before the Columbus Academy of Medicine, November 3, 1902.

When the patient presents a penile sore, the examiner lays great stress upon an accurate account of exposure, but the history is often as unreliable as confrontation is untrustworthy.

Admitting that the period of incubation for the chancre can vary only between ten and ninety days from the time of last exposure, and that a sore has developed consistent with these limits, it by no means follows that constitutional symptoms will or will not develop—suppose an innocent abrasion is present at the time of sexual relations with a syphilitic woman, or a friction sore develops during the act, this sore as seen by the examiner, cannot be the initial lesion, but having absorbed the virus the chancre will appear at the end of the period of incubation. The same may be said of a pre-existing herpes or vegetation.

Penile lesions, developing later than the tenth day from the time of last exposure, should be regarded with suspicion, though they are not necessarily specific, for innocent sores may develop at the point of inoculation before the chancre appears.

Confrontation is untrustworthy. The initial lesion in the female genital tract is seldom typical and the vagina may have simply furnished lodgment for the specific virus long enough for its transference to susceptible ground, the woman escaping infection. Finding the confronted party with active secondaries is not convincing proof, as a syphilitic by no means transmits the disease during every embrace.

The chancroidal sore may appear any time after exposure, even as late as three weeks, and present some of the characteristics of true chancre, especially if it has been cauterized.

When a single sore, irritated by heat, friction and moisture from the prepucial covering, and which has not received special treatment, remains several days, discrete upon the glans, not involving the mucous membrane of the sulcus or the meatus, the chancre should be suspected, rather than the chancroid, for the "filth sore" under such conditions always spreads.

Double infection is not infrequently met with, inoculation with both poisons, occurring simultaneously. The chancroid sore appears first and retards or prevents the typical growth of the chancre. In the place of primary sclerosis developing under the erosion, with its superficial ulceration, sloping edges, smooth, shining floor, and scanty secretion; doughy, inflammatory engorgement appears about a pustule or ulcer which has an abrupt, undermined edge, worm-eaten floor and an abundant, purulent, auto-inoculable secretion. As a consequence, constitutional symptoms often follow an apparently typical chancroid.

The chancre may be contaminated by the chancroid, or *vice versa.* In cases where the chancre develops primarily and is inoculated with chancroid, its ulceration deepens and it gradually assumes the appearance of the soft sore.

In cases where the chancroid develops first, it runs its course. When the incubation period of chancre is short, specific induration takes the place of the infiltration of the filth sore. When the incubation period is long, the sclerosis develops in the cicatrix.

Several abrasions are not infrequently found. They may be specific or chancroidal. If specific their appearance was simultaneous, as there may be as many primary sores as there are breaks of continuity to absorb the virus. If chancroidal they may develop in the same manner and for the same reason, but usually the ulcers appear at different intervals caused by auto-inoculation from the original sore.

Sclerosis rarely reaches its peculiar development earlier than the fifth, and occasionally not until the fourteenth, day after the appearance of the sore. In rare instances it never appears, but it is wise to await at least a week, before declaring an innocent looking lesion incapable of taking on specific hardening.

Enlargement of lymphatic glands in immediate relationsihp to the sore, is by no means diagnostic of specific infection. If present at the first examination, they may have been there prior to the suspected sore and in no way depend upon it, or the pleiad maybe disfigured by the inflammatory bubo of mixed infection or by engorgement following cauterization and infection from lack of cleanliness. The absence of primary adenopathy is not convincing. The change takes place slowly, and it is best to wait at least a week before expressing too positive an opinion.

The enlargement of the superficial ganglia remote from the point of inoculation suggests syphilitic infection, but loses significance unless associated with a clear history of a local sore, sclerosis and the pleiad. General hyperplasia is usually absent when the first examination is made and it is often necessary to wait three weeks or even a month before enlarged glands in the posterior cervical, epitrochlear and occipital chains are discoverable. If these glands are found enlarged at first consultation, it must be remembered that their engorgement is not always due to syphilis and their association with that disease should be clearly demonstrated.

When it is remembered that syphilis may follow a local sore, and develop the eruption without the appreciable enlargement of any gland in the body, or all the glands usually palpated upon the discovery of a suspicious sore, may enlarge in an orderly manner and no eruption follow, the pratitioner, who has had reasonable opportunity for mistakes, is likely to reserve a positive statement.

The other symptoms mentioned as occurring toward the close of the primary stage, headache, lassitude, pain in the poriosteum, joints and muscles, have their significance when properly associated, but of themselves do not form a group of symptoms from which the diagnosis of syphilis can be made.

The skin eruptions and the lesions upon the mucous membrane usually associated with them, appear about eight or nine weeks after infection and their advent, except under very favorable conditions, is necessary to a positive diagnosis. If vigilantly sought for, the first eruption will be discovered and constitutional treatment begun in time to prevent the onset of lesions which may disfigure the patient.

Unquestionably the diagnosis of syphilis has been made time and again from the appearance of the local sore, and the patient, treated in accordance, has never developed constitutional symptoms; but the questions arise, was the lesion a chancre and was there any necessity for specific medication?

The administration of mercury before the diagnosis is confirmed by concomitant symptoms is a serious mistake. If the suspected lesion is not chancre, the patient is unnecessarily subjected to the exacting requirements of, and possible injury from, specific treatment, and believing that he is syphilized, he suffers in mind as in body.

If the suspected sore is the initial lesion of syphilis, the administration of mercury during the primary stage is to be avoided, as it influences the evolution of the disease, delaying the development of the later symptoms necessary to a positive conclusion, and the patient, for want of convincing evidence, discontinues treatment too soon to eradicate the disease, notwithstanding the advice of the physician.

The patient should be persuaded to wait for convincing symptoms, in order that he may be sufficiently impressed to earnestly co-operate in the management of a disease which requires for its cure more than perfunctory attention.

TRICUSPID REGURGITATION.*

BY WILLIAM E. ALLAMAN, PH. G., M. D.,

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This subject is proposed for discussion not because of its great frequency, but because of the gravity of the condition. It is said to occur only once or twice in a hundred cases of valvular disease. I believe, however, that it occurs more often than it is discovered; because it is not always easy of recognition. It is more frequent during or past middle age; although it may occur in children or in fœtal life—during fœtal life the tricuspid valve is the one most frequently affected, because it is the more active valve during this period. The mitral valve remaining comparatively inactive durng intra-*uterne* life. This can account for the fact that many tricuspid valve affections due to endocarditis date from intrauterine life, thus congenital.

The right ventricle yields to a condition of broken compensation much sooner than does the left ventricle, owing to its thinner muscular wall, the proportion between them being as 1 to 3. The condition may be transitory or permanent, that is, it may be present for only a few days perhaps, and then disappear, or it may be present today and absent tomorrow, or again, it may persist throughout life when once established.

ETIOLOGY.

As a primary disease tricuspid insufficiency is very rare and it is said that the physician who makes a diagnosis of primary tricuspid regurgitation will upon post mortem examination usually be disappointed. When primary it is most often congenital. It is then essentially a secondary disease following lesions of other valves, most commonly the mitral. In lesions of the mitral valve the blood accumulates in the left auricle, pulmonary veins and artery and under this pressure the right ventricle hypertrophies and dilates, being compensated by reserve force which soon gives out and under persistent pressure the ventricle continues to dilate and hypertrophy, which may be hastened by myocarditis and in the meantime and perhaps henceforth there is a regurgitation through the tricuspid orifice. Myocardial degenerative change is a cause and any disease which induces such a change in the heart muscles may be considered as an etiological factor; the most important of which are diphtheria, scarlet fever, typhoid fever, acute articular rheumatism. A syphilitic gumma has been reported to have formed on the valve producing the condition. The valve may be ruptured by sudden strain.

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* Read betore the Franklin County Medical Society, February 24, 1903.

It is claimed that the tricuspid valve is involved in about one-half of the cases of endocarditis. It occurs in emphysema, sclerosis of the lungs, pulmonary tuberculosis, chronic bronchitis; in fact any extensive obstruction to the pulmonary circulation may produce it. Arteriosclerosis predisposes to it.

Relative frequency of associated valve lesions as reported in a large series of cases in London hospitals, 26 classifications:

No. 7 in this series—Mitral and tricuspid regurgitation.

8. Aortic regurgitation and stenosis, mitral regurgitation and tricuspid regurgitation.

9. Mitral stenosis and regurgitation with tricuspid regurgitation.

12. Aortic stenosis, mitral regurgitation and tricuspid regurgitation.

16. Aortic regurgitation, mitral regurgitation and tricuspid regurgitation.

17. Mitral stenosis and tricuspid regurgitation.

18. Aortic stenosis, mitral stenosis and regurgitation and tricuspid regurgitation.

20. Aortic regurgitation and mitral stenosis.

21. Aortic and tricuspid regurgitation, mitral stenosis and regurgitation; tricuspid regurgitation.

22. Aortic regurgitation and stenosis, mitral stenosis and regurgitation, tricuspid regurgitation.

23. Aortic regurgitation and stenosis, mitral stenosis and regurgitation, tricuspid stenosis and regurgitation.

25. Aortic stenosis, mitral stenosis and regurgitation and tricuspid stenosis and regurgitation.

Relative gravity—First, tricuspid regurgitation.

PATHOLOGY.

The pathology varies with the manner in whcih the condition is produced.

1. Relative insufficiency. It is an inability of the valves to close the auriculo-ventricular orifice which has become dilated,

the valve as such being unaffected—the ventricle and orifice dilate simultaneously when overworked, the heart muscle attempts to compensate by hypertrophy; but finally the muscle cells become so large that the nucleus thereof is no longer able to preside over its individual cell; consequently a degeneration and a greater dilatation occurs, which process may continue t othe end. This is the type generally associated with mitral insufficiency—hypertrophy predominatees in the earlier stages, dilation in the latter. The wall of the right ventricle may be found thick and leathery or it may be thin and flaccid. The coronary veins are turgid and dilated; there is a general venous engorgement. The dilatation may be of the ventricle only in some instances, in which case the cordæ-tendinea are rendered relatively too short to allow a proper coaption of the valve flaps.

2. The cordæ tendineæ may be diseased so as to produce a contraction thereof so great that the valves are rendered practically immobile.

3. Affections of the valve per se.

A valve may become ruptured due to ulceration of same or by sudden strain when in comparative good health, or it may be disabled by endocarditis so that it can no longer close the orifice.

The muscular fibres of the valve may be at fault. It may be due to a myodegeneration or it may be a functional disturbance, vaso-motor in origin is suggested, valve flaps being musculo-fibreous in structure.

SYMPTOMS AND SIGNS.

The first thing to attract attention will often be the jugular pulse. If there is a presystolic-systolic or diastolic jugular pulsation you have already made a diagnosis of tricuspid regurgitation; for it is a pathognomonic sign (Anders). Presystolic because of the regurgitation during auricular systole and systolic because of the regurgitation during ventricular systole; pulsation most intense in the internal jugular vein. If the valve in the external jugular, which is about an inch and one-half above the clavicle, is intact there may be no pulsation above this point; but the vein will be dilated below the valve and will present a pulsatile expansil tumor which may be as large as a hen's egg, bluish in color. The pulsation is stronger in the right vein because it is on a more direct line with the right auricle. Other superficial veins about the neck may be distended and pulsatile also. The stronger the right heart the greater the pulsation. The jugular pulsation may easily be distinguished from carotid pulse by the fact that it may be obliterated much more easily by pressure and that all pulsation naturally ceases in the vein above the point of pressure, and if the vein be obliterated from below up it will be seen to fill a little with each systole.

When the resistence of the eustachian valve has been overcome the blood is propelled into the inferior vena-cava and the venous pulse may be recognized in the liver and in the femoral veins. In fact the liver pulsation may be recognized earlier than the other venous pulsations, owing to the absene of valves in the veins of the liver. To elicit this sign place one hand over the fifth and sixth costal cartilages and the other in the lateral region of the liver in the mid-axillary line, when a systolic expansil pulsation will be perceptible. Venous pulsation requires with tricuspid insufficiency a strong action of the left ventricle, and the reason why pulsation of the liver is so often absent is because these two conditions seldom coincide. The venous pulse is everywhere distinctly increased during inspiration and diminished during expiration.

Pain may be felt in the region of the liver due to tension of the capsule from swelling of the liver.

Pain in the epigastrium, with pressure tenderness over the left hepatic lobe especially.

The spleen is swollen and tender.

The heart dullness will generally be found increased to the right and a more or less distinct pulsation at the enciform cartilage which may be conducted over the epigastrium.

The murmur is heard at the middle or lower half of the sternum and distinctly to the right of it though in exceptional cases it is heard to the left of the sternum and may thus be confused with mitral insufficiency; it may, however, be followed to the right as far as to the right axillary line, which is never the case with a mitral murmur. The murmur is systolic, usually soft and blowing in character, may be very faint or even absent entirely. In exceptional cases it is rough and rasping.

Dysponea may be marked, due to defective pulmonary circulation.

Cyanosis of nose, lips and ear tips, also of finger tips may be present.

Arterio sclerosis may be present as evidenced by pipestem arteries; make pressure on radial artery with finger and distal end will yet be palpable and hard and can be rolled under finger, temporal arteries tortuous and hard.

Gastritis may be present, due to congestion of mucous membrane of stomach.

Passive congestion of kidneys, urine scanty and contains albumin casts and may be blood and epithetial cells.

As long as compensation continues there will be an accentuated second pulmonic sound.

There may be a reduplication of the second sound, due to an unequal pressure in the pulmonary and general circulation.

Rupture of compensation is recognized by loss of accentuation of second pulmonic sound, irregularity of pulse, rythm and volume, edema of lungs or feet, urine diminished in quantity.

The first sound before it becomes very feeble may be short and flapping like the ordinary second sound.

DIAGNOSIS.

The diagnosis must be made many times without all the signs and symptoms looked for; because, like in other diseases, all the signs and symptoms of a typical case are not always present in all cases. But one or more of the three following signs must be present before one can defend his case as he should be able to do:

1. Presystolic-systolic jugular pulsation.
2. Systolic murmur in tricuspid region transmitted to the right.
3. Hepatic pulsation.

The false venous pulse must be kept in remembrance. It is due to the contraction of the hypertrophied right auricle, hence presystolic, and is weakened by compression, thus allowing less blood to enter the auricle.

Cardiac dullness increased to the right. Visible pulsation at the enciform cartlige, with a systolic bruit, usually soft and blowing in character, heard best at right of enciform cartilage.

The murmur is generally best heard at the center of the sternum on a line with fourth costal cartilage, but may be most distinct in mitral territory. It is to be remembered that murmurs produced by any form of valvular lesion may exist with great intensity without there being any systemic disturbance or the patient being conscious of their presence. On the other hand, the murmur may be so faint as to be almost indistinguishable and yet the general symptoms of heart disease be very marked. This is because the development of general symptoms depends entirely upon the question of compensation by hypertrophy. The possibility of a cardio-pulmonary murmur must not be forgotten. This is produced by the distension of the ventricle in diastole forcing the air out of the alveoli tubules, generally most marked during inspiration, and is heard after an appreciable interval after the valvular flap (first sound) and ceases before the second sound; it disappears on forced expiration.

Pericardial murmurs or friction sounds as well as other endocardial murmurs—anemic murmurs—and other adventicious sounds in the region of the heart, such as may occur in anurisms, etc., must all be differentiated from the murmurs of tricuspid insufficiency.

PROGNOSIS.

Is always bad because it is, so to speak, the last link of a series of compensatory possibilities, the right auricle's compensatory power being of comparative insignificance, because of the extreme thinness of it wall.

The immediate danger is never very great so long as there is an accentuated second pulmonic sound, but when this fails a very grave condition is encountered, for it indicates a weakened right ventricle. The outcome depends upon the heart's response to digitalis; when it no longer responds to this drug the end is not far off. If heart stimulants are properly used the patient may readily improve from a most dangerous condition, but the improvement is by no means permanent.

TREATMENT.

The treatment will naturally vary with the character and severity of the condition. As long as the heart is compensatory no medication is needed with reference to the heart directly; there are, however, no objections to treating any underlying condition which may be present according to the indications.

A regurgitation due to overstrain: Rest, permitting heart muscles and fibres of the valves, those surrounding the auriculo-ventricular orifice, or of the ventricle proper, to regain normal tone; advise patient against hurtful forms of exercise, especially if they are old in actual years or prematurely aged.

Ruptured compensation. Absolute rest in bed is by all odds the essential thing, the patient may assume that position in which he is most comfortable. Partial depletion of the engorged venous system is essential, especially if dysponea be distressing.

This is best done by bleeding, or it may be done by administration of sodium sulphate in sufficient dosage to produce copious fluid stools.

Digitalis and caffeine are the two most useful medicinal agents. I know of no contraindication to the use of these two remedies in the malady in question. Tr. digitalis in 15 to 20 min. doses by mouth every four to six hours, keeping patient in bed during its administration. The physiological effect of digitalis is obtained in about six hours, and will last from four to six hours. Caffeine may be given in suitable doses oftener if desired. In associated vascular sclerosis nitroglycerin in 1-100 to 1-50 gr. doses is the most efficient vaso-dilator. Its action is obtained in about 20 minutes and lasts about one and one-half hours. Its transitory action is its most objectional feature. Opium is a reliable dilator and possesses a more prolonged action, but it has its objections. Sodium nitrite may also be used as a vaso-dilator, 3 to 5 gr. doses.

If during the administration of digitalis there is nocturnal delirium, pallor, cold extremities, trembling and contracted pupils, discontinue for a time. Intolerance of digitalis, or too strong dosage is manifested by sensations of oppression or disturbance about the precordium, dizziness, faintness and at times irregular heart action.

No one of the alkaloids of digitalis can take its place in this affection of the heart; however digitaline may be used if hyperdermic administration is necessary. Digitaline (Merck) 1-12 to 1-8 gr. represents a dose of from 10 to 12 min. of a reliable tincture.

Digitalis is a vaso-constricting cardiac stimulant, reduces the pulse rate and increase its force. An excellent combination is as follows: Powdered digitalis leaves, gr. i; plv. squills, gr. i; calomel, gr. i; plv. opium, gr. 1-2; one capsule three times a day. For long continued use the following is recommended: Digitaline, gr. 1-12; strychnia, gr. 1-60; nitroglycerin, gr. 1-100; three times a day.

When a patient is in a state of collapse marvelous results are obtained by the hyperdermic use of camphorated oil (camphor 10 per cent. in pure olive oil) 15 to 30 min. doses. One or two such doses will exhibit efficiency.

Strophanthus, spartine, strychnia, cactus, carbonate of ammonia, convallaria majalis, grandiflora and whisky are all cardiac stimulants and may be remembered in this connection.

Report of clinical cases occuring in hospital practice of D. N. Kinsman, M. D., which I report with his consent:

CASE 1: Mr. W., age 33, laborer. Had suffered no severe illness until last few years, during which time he has had several more or less severe attacks of rheumatism. During an attack he entered the Protestant Hospital on January 28, 1903. There was no murmur to be heard at this time, but on January 29 there was present a tricuspid systolic murmur, soft blowing in character, most distinct in mitral region, but not transmitted to left scapula could scarcely be heard in left axillary line. But it was transmitted to the right almost to the axillary line. There was no presystolic-systolic jugular pulsation present except when the murmur could be heard. The murmur was not present on January 30, but reappeared on January 31, and was still audible on February 2, 1903, when the patient was discharged.

This was believed to be a valve muscular insufficiency; because of the presence of only two signs, absence of an enlarged right ventricle and absence of symptoms; also the periodicity of its presence.

CASE 2: Mr. H., age 46, laborer. Entered Protestant Hospital on December 30, 1902. Temp. 100, pulse 120. Marked dyspnea, more or less cyanotic, pain in epigastrium, cough and rather profuse expectoration.

Left lung sclerosed, sunken left chest, spine slightly curved to right in dorsal region; right lung emphysematous, patient also asthmatic. Liver enlarged, extending two-thirds of way from enciform cartilage to the umbilicus, tender upon palpation and pulsatile. Veins about head and neck quite distended, there was a presystolic-systolic jugular pulsation. Heart, no visible apex beat. Mitral systolic murmur present, transmitted to region of left scapula. Tricuspid systolic murmur heard over middle part of sternum, transmitted to epigastrium and to right axillary line, rather rough and to and fro in character; pulmonic second sound somewhat accentuated. Heart could not be outlined by percussion owing to the condition of the lungs. Arteries somewhat hardened. There was also a passive congestion of kidneys, as indicated by scanty urine; acid, sp. gr. 1032, albumen 1-10 per cent.; acid urates in abundance; blood and blood casts epithelial cells; mucous and a trace of bile; solids 74 gms. to 1000 c.c. Chronic gastritis with dilated stomach, absence of HCl and presence of lactic acid in gastric contents.

The tricuspid insufficiency in this case was one of relative insufficiency, because of its frequent association with mitral insufficiency, presence of epigastric pulsation and because of the extreme and prolonged obstruction to the pulmonary circulation.

The patient was for the most part kept quiet in bed, depleted with sodium sulphate i; potassium iodide, gr. v, tid. Discharged on January 28, 1903, improved.

Society and Association Proceedings.

FRANKLIN COUNTY MEDICAL SOCIETY.

Regular Meeting March 24, 1903.

Sherman Leach, M. D., Pres. Chas. W. McGavran, M. D., Sec.

The paper of the evening was on

"SMALLPOX AND VACCINATION,"

by Dr. McKendree Smith, City Superintendent of Health.

Dr. Smith said that during the present epidemic of smallpox almost every variety of the disease had been seen here, including several cases of the hemorrhagic and four in quarantined families without the eruption (*variola sine eruptione*). No person who had a successful vaccination ten days old had contracted smallpox. There had been many cases of the so-called "strawberry" vaccinations; these were not regarded as successful.

At the time of this report there had been in all 230 cases in the city, with 37 deaths. Of these three were cases of recurrent smallpox, one after five years, one after eight years, and the other forty-five years after preceding attack.

Of the 230 cases, 184 had never been vaccinated, 143 had scars as evidence of vaccination, but many of these scars were atypical, and not conclusive evidence of successful vaccination. Three were recurrent cases. In fifteen cases the vaccination was just taking. In one case the vaccination was two years old, in another eight, another ten, another thirteen, another sixteen, another twenty-two, another thirty, another thirty-two, another thirty-five, another thirty-eight, another thirty-nine, another seventy. In two cases the vaccination was four years old; in two others six years old, in two others twelve, in two others fifteen, in two others twenty years old. In three cases it was twenty-six years old, in three others forty years old.

Of the thirty-seven deaths, two were of persons who bore indifferent scars of vaccination. One patient was seventy years old, the other twenty-eight. In the cases of death the longest sickness was thirty-two days, the shortest eight days—the average duration of illness eleven days. The most frequent complications were septic pneumonia and meningitis.

A general discussion followed.

THE COLUMBUS MEDICAL JOURNAL.

A MONTHLY MAGAZINE OF MEDICINE AND SURGERY.

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Communications relating to the editorial department should be addressed to Dr. J. U. Barnhill 248 East State Street; those relating to the business management should be addressed to Dr. W. J. Means, 715 North High Street.

APRIL, 1903.

Editorial.

ANESTHOL.

In 1898 Dr. Willy Meyer, of New York, proposed a modification of Schleich's anesthetic mixture, by the substitution of hydrochloric ether (ethyl chloride or monochlorethane) for petrolic ether in that preparation.

The new combination—said to be a true molicular solution with a "boiling point" of 40° C. (104° F.)—has been named by Dr. Meyer anesthol. Based upon the Schleich principle it has been worked out along scientific lines, and probably represents the best combination of anesthetics yet proposed.

Prof. Schleich, of Berlin, in 1895, advanced the theory that an "anesthetic mixture, the boiling point of which closely approximated the temperature of the body, would possess great safety and cause the minimum of after-disturbance by reason of the definite and suitable relations thus established between absorption, elimination and the amount of the agent retained in the circulation." He sought to find or compound a safe and inexpensive anesthetic of which the "amount eliminated during expiration would practically equal that absorbed during the previous inspiration. The end sought was to secure an anesthetic solution whose boiling point would be the temperature of the body. It was found that Schleich's mixtures contained free ether and benzene (petrolic ether) and that at the beginning of the administration the anesthetic was adapted to the body temperature, but that the later narcosis was maintained with a molecular solution whose boiling point was considerably higher, 125.6 F.

It was believed that this variable volatility resulting in a heavy residue explained the cases of deep cyanosis, disordered respiration and circulation, vomiting, broncho-pneumonia, and albumenuria which frequently occurred with this anesthetic and led to its abandonment.

With the aid of an expert chemist, Dr. Meyer brought forward a new "molecular solution" composed of chloroform 35.9 volumes (boiling point 149° F.), sulphuric ether 47.1 volumes (b. p. 93.2°) and ethyl chloride 17 volumes (b. p. 59° F.). This combination has a boiling point at 104° F., which is well suited to give good results, the temperature of the lungs being normally 100.4 F. One of the combinations worked out—namely ethyl chlorid 18, ether, chloroform 35 and ether 47 volumes, has a boiling point corresponding to the temperature of the lungs. Meyer, however, preferred the first one given, and named it anesthol. It is a clear fluid, with an agreeable, chloroform-like odor, with a specific gravity of 1845. It contains no free chloroform or ether. The physical or chemical property which is believed to give it advantage over other mixtures is that its components are dissolved in each other as a "molecular solution," having an evaporating point of its own, *i. e.*, it is not a new body chemically, but a molecular combination or solution whose ingredients evaporate uniformly in ratios of their respective volumes. "On evaporating 1000 c. c. of anesthol for five hours at a uniform temperature of 104° F., only 22 c. c. (2.2 per cent. volume), with a specific gravity of 1262, remained. As the weight of chloroform is 1.490, this experiment proves," says Professor Weidig, "that up to the last moment a solution of components discharges and does not leave a final residual chloroform, the narcotic with the highest boiling point, as is the case in Schleich's mixture." The proportions of the ingredients in anesthol are almost identical to those in the A. C. E. mixture—hydrochloric ether being substituted for the alcohol—but as pointed out by Dr. Meyer the latter is an empiric proportion, while the former is based upon scientific principles, being the result of an attempt at adjusting the boiling point of an anesthetic chemical combination of chloroform and ether to the temperature of the human body.

The asumption is that as the boiling point of the compound anesthetic is near the temperature of the lungs, elimination will be rapid, keeping pace with absorption. Professor Weidig's evaporation experiment demonstrates that it is a "solution of components that discharges in ratios of their respective volumes," but does it follow that the vapor that reaches the lungs is still a molecular combination which, as such, will be absorbed and eliminated pari passu?

This preparation has been on trial now for over four years and thus far reports have been almost uniformly favorable. It is administered by the "drop-by-drop" method—employing a mask covered with sterilized gauze and oiled silk with central opening. The inhalation of anesthol is agreeable. Surgical anesthesia is secured in a brief period—five to eight minutes—the narcosis is not profound, the stage of excitement is practically eliminated, especially if preceded by morphine hypodermically. Muscular relaxation is complete, consciousness returns quickly after removal of mask. Vomiting is rare. Dr. Meyer says that he considers anesthol the least dangerous of all anesthetics thus far known.

It is being used at the Protestant Hospital in this city and thus far with very good results. It is certainly worthy of a careful trial. It will, of course, not be found without danger, but it promises to be less dangerous than chloroform or ether alone, or than any other combination thus far proposed.

Two deaths during anesthol anesthesia—both at the end of the operation—have been reported. Both were operations for diseased kidney. It is estimated that one out of every 10,000 patients dies while under the influence of ether and one in every 2000 while under that of chloroform. Let us hope that the new anesthetic will give better results. Anesthol is not patented. It may be prepared by any careful pharmacist.

APPOINTMENT ON STATE MEDICAL BOARD.

Wednesday, 1st inst., Governor Nash appointed Dr. E. J. Wilson, of this city, member of the State Board of Registration and Examination for a full term, expiring March 19, 1910, to succeed Dr. N. R. Coleman. Dr. Coleman was a member and president of the Board since its organization.

During these seven years great good has been accomplished for the profession. The board has with rare good judgment carried out the spirit of the law regulating the practice of medicine. We have on other occasions taken pleasure in pointing out the salutary influence of the present state medical law, and the debt of gratitude which the public and profession owe the men who aided in its enactment and to the State Medical Board in particular for the aggressive and at the same time conciliatory manner in which the law has been enforced. The retiring member has been zealous and active in promoting the best interests of the profession. His successor, Dr. E. J. Wilson, has likewise been actively interested in behalf of favorable medical legislation and higher educational standards. He has been identified with the educational interests of this city as member and president of the board of education and for a number of years as professor in one of the local medical colleges. His ability, interest in education, and the public welfare, make it certain that his influence will be strongly felt in promoting the best interests of the profession and public. The appointment is a good one and has, we believe, been received with general satisfaction.

ANNUAL DINNER—COLUMBUS ACADEMY OF MEDICINE.

The annual dinner given by the Columbus Academy of Medicine to its members and invited guests was an enjoyable and profitable affair. Preceding the dinner, Profesor John H. Lowman, by invitation, read a paper before the Academy and assembled visitors. The subject was "Tuberculosis and the Sanatorium." The address was greatly appreciated by the assembled physicians. It appears in this isue of the JOURNAL.

Following the material repast which was served in the elegant dining room of the Hotel Hartman, Dr. D. N. Kinsman, acting as symposiarch, a number of toasts were responded to by members and guests. "The Organization of the Medical Profession, "The Catholicity of Medicine," "The Opportunity of Today for the Young Man in Medicine," "The State and the Sanatorium," "Our Opportunity in the New Carnegie Library," "The Medical Profession and Its Relation to Municipal Problems," were among the topics that furnished the feast of reason and flow of soul. Dr. Lowman, the guest of honor, emphasized the importance of scientific research in the successful practice of medicine and the need in medical colleges of teachers thoroughly trained in laboratory methods in illustration of the opportunity of today for the young man in medicine. Hon. J. H. Outhwaite, chairman of the State Tuberculosis Commission, bespoke the support of the profession in seconding the recommendation of the commission for an appropriation with which to establish a sanatorium in Ohio for the treatment of the unfortunate tuberculous sick. The round of applause which greeted his remarks indicated that the local profession is alive to the need of such sanatoria and will give its support to the cause which the speaker so ably represents. Mr. G. T. Spahr, President of the Board of Trade, solicited the coöperation of the profession in the efforts which the board is making to promote the general and sanitary welfare of the city. The other addresses, which were by members of the Academy, all of them forcible and timely, will, we believe, bear fruit in a better organization of the profesion, in a realization of the catholicity of medicine that shall displace sectarianism, and in a united effort of the local profession which shall secure a library and reading room.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH.

Prominent among the many recent endowments for the promotion of medical science are those of Mr. John D. Rockefeller, who gave in 1901 the sum of $200,000 for the founding of an institute for medical research, which should have special reference to the prevention and treatment of disease, and in June, 1902, $1,000,000 for the purchase of suitable land, erection of buildings and the organization of a working force along the the same lines of investigation. The directors of the institute are: Drs. William H. Welch, of Baltimore; Theobald Smith, of Boston; Simon Flexner, of Philadelphia, and Drs. Hermann M. Biggs, C. A. Herter, L. Emmett Holt, and T. Mitchell Prudden, of New York. The officers: Dr. William H. Welch, president; Dr. T. Mitchell Prudden, vice-president; Dr. L. Emmett Holt, secretary, and Dr. C. A. Herter, treasurer. It has been a part of the plan to distribute a portion of the work throughout the country and thus to "enlist the interest and coöperation of such investigators as might be engaged in promising researches or who might enter on new fields if suitable pecuniary assistance could be afforded them." More than twenty persons have already been selected to conduct original research relative to the cause, prevention and cure of disease and to "the problems on which new knowledge on these subjects must be based." Counsel in making these selections has been secured from the heads of departments or others in the universities of Harvard, Yale, Johns Hopkins, Pennsylvania, Columbia, New York, Chicago, Michigan, California, McGill, Wesleyan and Western Reserve, and in many of these institutions work has been prosectued. Two of the Rockefeller fellows have been working in Europe. The grants or scholarships vary from $200 to $1500. Some of the work has been completed and published, other investigations are still in progress. The Journal of Experimental Medicine, remaining still under the editorial supervision of Dr. W. H. Welch, professor of pathology in the Johns Hopkins, is to be published by the Institute and will doubtless contain full reports of the results of these researches.

At the end of the first year of practical work, it became clear to the directors that centralization of effort, with suitable equipment and permanent endowment would be necessary to afford adequate facilities for many phases of investigation which are of the utmost importance and urgency. It was in view of these larger needs that the second sum of $1,000,000 was given by Mr. Rockefeller. With this fund it is the purpose of the directors to erect a laboratory building for research in physiologic chemistry, pharmacology, therapeutics, normal and pathologic histology, morphology and bacteriology. It is hoped this work may be commenced in the autumn of 1904. At the same time it is the purpose to continue to give encouragement as during the first year, to special workers all over the country, as well as in Europe. Dr. Simon Flexner, professor of pathology in the University of Pennsylvania, is to direct the scientific work of the Institute, having associated with him heads of departments each with a staff of trained assistants.

Under pecuniary grants of varying amounts, research work will be carried on at the Institute, also by groups of qualified men to be designated fellows, and scholars.

Obituary.

CHARLES B. FERRELL, M. D.

Dr. Charles B. Ferrell died at his home in this city March 22, 1903, of cerebrospinal meningitis. He was born in Holmes county, Ohio, in 1839. He was educated at Miami Medical College (1862-3) and at Bellevue Hospital Medical College, receiving his degree from the latter institution in 1873. During the interim he was engaged in the practice of medicine. After graduating at Bellevue he located in this city, where he has since resided.

Possessing a genial disposition and having the faculty of saying kind things at the right time, he won for himself a large circle of friends and acquaintances and enjoyed an extensive practice. He was a member of the Masonic order and Central Ohio Medical Society. Under the Foster administration of state affairs he was the head physician at the Ohio penitentiary.

Dr. Ferrell leaves a wife and three daughters. The funeral services were held at the residence, Rev. Dr. Gladden officiating. The remains were interred at Nashville, O.

W. E. B. DAVIS, M. D.

The death of Dr. W. E. B. Davis of Birmingham, Ala., is a loss to the profession of the United States which words prove inadequate to express. The world is better for his having lived. The medical profession is richer in scientific treasure as a result of his efforts. His was truly "a character where every god did set his seal to give the world assurance of a man." A smile and kind word for everyone; his every act a benediction. This was the character of Dr. W. E. B. Davis whose life was crushed out by the wheels of the Alabama Great Southern Railroad train on February 24th.

To those who were privileged to know him the thought of suicide is impossible. He was brave, honest and true. His life had been made pleasant by the full recognition of his grand character and great ability, by the unstinted love of his townsmen and the honors conferred upon him by his colleagues and the profession at large. Only forty years old, honored, respected, loved by all who knew him, his ability recognized, greater professional honors yet in store for him, he had everything to make him want to live and nothing to cause him to seek death. The only unkindness the profession had ever shown him was by this improbable suggestion in some of the medical journals.

His brethren recognized his worth by the following honors: President Tri-State Medical Society (States of Alabama, Georgia and Tennessee); Secretary Surgical Section A. M. A.; Chairman Section on Diseases of Women and Obstetrics A. M. A.; Secretary Southern Surgical Association; President Southern Surgical Association; Member of Judicial Council A. M. A.; Professor Gynecology and Abdominal Surgery, Birmingham Medical College; President American Association of Obstetricians and Gynecologists; Honorary President; Secretary on Abdominal Surgery first Pan-American Congress, and other honors without number.

In Birmingham his death cast a pall of gloom never before experienced by the city. Men, women and children united in one common thought—"the loss is personal and irreparable." This thought and feeling is shared by every one who knew him, and though dead his work and character will live to bless mankind as long as human suffering shall require. Sympathy, strength and skill for these were the fruits of his life. F. F. LAWRENCE.

DR. OTTO ARNOLD.

Otto Arnold, D. D. S., one of the most prominent dentists in the state, died April 1, at his home in this city. Dr. Arnold was professor of Dental Surgery in Columbus Medical College, and for four years dean and professor of Operative Dentistry in the College of Dentistry, Ohio Medical University. He was a member of the leading dental associations, and had a national reputation as a practitioner and educator.

Medical News Notes.

Dr. J. C. Haney, of Dalton, O., spent a few days in the city the past week.

Dr. Samuel Milton Humphries has moved from the city to Radner, Wood county, O.

Dr. J. A. Stout succeeded Dr. J. D. Dunham as physician to the County Children's Home.

Drs. J. B. Daugherty and V. A. Dodd have been appointed internes at the Protestant Hospital.

The U. S. navy needs surgeons. There are at present twenty-seven vacancies in the navy. The age qualification is 21 to 30.

Dr. E. J. Wilosn has been appointed on the State Board of Medical Registration and Examination, vice N. R. Coleman, whose time expired.

Dr. Hugh H. Young, of Johns Hopkins University, was in the city recently, and attended the annual dinner of the Columbus Academy of Medicine.

Dr. K. S. West, of the class of '03, Ohio Medical University, has been appointed assistant physician at the Cleveland State Hospital for Insane.

NEW BUILDINGS FOR MANHATTAN EYE AND EAR HOSPITAL.—A new site has been chosen and new buildings to cost not less than $200,000 are to be erected.

HOSPITAL FOR TUBERCULOUS PATIENTS.—On a tract of 145 acres adjoining Bay View, a hospital with detached buildings is to be erected for the care of the tuberculous sick.

Dr. W. J. Means was appointed by the Ohio Medical University as delegate to the New Orleans meeting of the Association of American Medical Colleges, of which body he is president.

NEW BUILDING FOR LONG ISLAND COLLEGE HOSPITAL.—Through the generosity of J. R. Maxwell and others Long Island Hospital is to have a commodious new building, costing about $1,000,000.

JOURNALS WANTED.—Columbus Medical Journal, Vol. II, No. 11; Ohio Medical and Surgical Journal, Vols. I, II, III, IV, V; Vol. VI, Nos. 2, 4, 5; Vol. VII, Nos. 3, 4, 6; Vol. VIII, Nos. 2, 3, 4, 5, 6; Vol. IX, all; Vol. X, Nos. 4, 5; Vol. XI, No. 6; Vol. XII, No. 1; Vol. XIII, Nos. 1, 21; Vol. XIV, No. 6; Vol. XV., Nos. 4, 6; Vol. XVI, No. 1, 2.

Recent Medical Books.

LEA'S SERIES OF MEDICAL EPITOMES. MANTON'S OBSTETRICS. A Manual of Obstetrics for Students and Practitioners. By W. P. Manton, M. D., Adjunct Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine. In one 12mo volume of 265 pages, with 82 illustrations. Cloth $1.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

This, the fourth volume of Lea's Series of Medical Epitomes, presents a clear compendious covering of the essentials of modern obstetrics. It is written in admirably simple language, and its arrangement and scope give ample evidence of its author's experience in teaching this subject.

The little volume stands out boldly as an example of skillful condensation; its 265 pages contains a surprising amount of well-told information necessary to a foundation knowledge, and a superfluous word or phrase would be hard to find. To the student it will prove a boon indeed, and teachers and practitioners will value it almost as much. M.

PROGRESSIVE MEDICINE. Fifth Annual Series. Volume I, March, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 450 pages, illustrated. Per volume, $2.50, by express prepaid. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

As the title of Progressive Medicine indicates, its pages are devoted to the real advances of medical science. The editors of its different departments are all scientific men and teachers of experience, and its contents are not mere abstracts of articles appearing in current medical literature.

In the present volume, Frazier, in the section on the Surgery of the Head, Neck and Chest, describes particularly the wonderful progress which has been made in the surgery of the skull and brain, especially in the diagnosis of brain tumors and abscesses; he also particularizes the latest researches into the surgery of the thyroid gland, and some of the remarkable results achieved in recent operations on the heart. Among other topics, he also discusses the surgical treatment of diseases of the osophagus and stomach. Herrick writes the section on the Infectious Diseases, devoting especial attention to the importance of serum therapy in the light of recent discoveries. His description of the methods in vogue in the management of typhoid fever and pneumonia is remarkably full and of great value.

Crandall, in considering Diseases of Children, describes in detail the methods of feeding and of milk modification, which are of such immense practical value in the treatment of diseases of infancy and childhood.

In the section of Pathology, Dr. Hektoen devotes particular attention to the late studies into the specific properties of the various tissues and fluids of the body.

The study of Cytotoxins, Agglutinins and Precipitins is of such importance and of such intricacy that a lucid explanation will prove of inestimable value to the great body of the profession, who otherwise would be unable to acquaint themselves with the recent strides achieved by workers in chemical pathology.

A. Logan Turner, in the section on Laryngology and Rhinology, presents a summary of recent achievements in the correction of nasal deformities by means of paraffin injections.

Randolph's article on Otology is devoted largely to a discussion of the methods employed in the treatment of various chronic aural conditions, heretofore considered as almost hopeless from a therapeutic standpoint.

The volume is profusely illustrated and completed with an index, which is so arranged as very greatly to enhance its value to the busy practitioner as a work of reference. M.

CLINICAL TREATISE ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. By Professor Dr. Carl von Noorden, Physician in Chief to the City Hospital, Frankfort, a. M. E. B. Treat & Co., New York, 1903.

This series of monographs on Diseases of Metabolism and Nutrition are interesting and instructive. The first one is on obesity. The indications for reduction founded upon a critical scientific study are clearly set forth. The second one is on Nephritis. His handling of the subject is certainly bold, original and somewhat iconoclastic. The *third volume* is on Colitis. This is one of the diseases which every busy practitioner encunters frequently, and under the methods of treatment prevalent until very recently it proved difficult to cure, mainly for the reason, doubtless, that it was imperfectly understood.

The author claims to be able to cure a large portion of cases by the method which he recommends. To the student of medicine these books wll be interesting. M.

THE OFFICE TREATMENT OF RECTAL DISEASES EXPLAINED AND SIMPLIFIED. By Rufus D. Mason, M. D., Omaha, Neb. The Review Press, Lincoln, Neb., 1902.

Dr. Rufus D. Mason, Professor of Rectal and Pelvic Surgery in the Creighton Medical College, Omaha, has just completed a valuable little work on "The Office Treatment of Rectal Diseases," in which he fully explains the work in a very simplified manner. It was not written to cover the whole field of rectal surgery, but only those cases susceptible to treatment without general anesthesia, and which will cover the ground necessary for the general practitioner rather than the specialist. M.

THE COLUMBUS MEDICAL JOURNAL.

VOL. XXVII. MAY, 1903. No. 5.

PREVENTIVE MEDICINE.*

BY EDMUND CONE BRUSH, A. M., M. D., ZANESVILLE, O.,

Surgeon General Ohio National Guard, ex-President Ohio State Medical Society.

It is wonderful with what rapidity the commencement seasons come and go. At this time the medical colleges throughout the land are sending forth hundreds of young physicians. A little later other schools will pour forth their annual contribution, and seminaries will again produce that loveliest of all creatures—the sweet girl graduate.

These endings of student life and commencements of practical life are celebrated in a more or less elaborate manner. Fond parents and friends gather to see their loved ones receive their diplomas, and the graduates feel their own importance, to a greater degree than they ever will again. Such occasions are worthy of pomp and ceremony. In after years, when life's burdens are heavy, when the training and education obtained is winning bread, and perhaps wealth and fame, commencement night comes back like a dream. A dream of music and flowers, beautiful women (perhaps one a little more beautiful than all the others), dry addresses, a benediction, a farewell to classmates and then the battle for life.

Oh! to be once more a "Medic,"
  To graduate from Quain;
To feel that swelling of the heart,
  One ne'er can feel again.

The history of the arts and sciences, in fact the history of the world, has been, and is, marked by epochs, or eras. The science of medicine has had its full share of these eras, and every one has marked an advance. Disclaiming any desire to talk "shop" to you, but rather, to talk to you on a subject that is yours as well as the physician's, I am going to say something in regard to the present era in medicine—the era of preventive medicine; one of the greatest accomplishments of the science of medicine.

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*Delivered at commencement of Starling Medical College, Grand Opera House, Columbus, Ohio, April 16, 1903.

The educated physician of today is taught to cure diseases, as were his predecessors; but he is taught more, he is taught how to prevent disease, so far as that branch of the science is known, for it is not all known by any means. More is to be learned about preventive medicine, and it will be learned just as sure as energy, brains and scientific work can bring it. That certain diseases were contagious has been known for all time. Other diseases were classed as infectious. Then the question as to the difference between contagions and infections had its turn, and so, while the questions of minor importance were being discussed, the undertone of substantial research was going on and on.

Fifty years ago, as now, no sane person denied that smallpox was contagious, but if the question was asked, Why is it contagious? the reply would be, "No one knows," or, "There is something in the air." Modern research has discovered the contagion of many diseases. Modern research has discovered the cause of many diseases. Modern research is devising means and methods to remove the cause; and this brings us to Preventive Medicine.

The word medicine is being used in a new sense. Going back a very few editions of standard medical dictionaries, one is unable to find the term "preventive medicine." The dictionary of today defines it, as "That branch of medical science that attempts to prevent, or ward off, disease, by properly directed hygiene, personal and public." That word hygiene carries one back to the school days, when we studied mythology, and wondered if there was no end to the gods and goddesses. Dear old Æsculapius was a man of family and among his children was the good daughter Hygiea, the goddess of health; and her sister Panacea, the all healing. We use these words daily, forgetting that they were once the proper names of two daughters of the god of medicine.

There is always a cause, known or unknown, for changes and new ideas in any science. The idea of preventive medicine is not a sudden thought, far from it. It is the result of plodding scientific investigation for generations. Medical men have not been baffled by what seemed to be insurmountable obstacles. The magnifying lens has been improved from time to time, and made more powerful, because, as men investigated the tissues and secretions of the body, they became assured that much was hidden, for want of larger magnifying power. So the microscope, from a simple magnifying lens, has grown to a combination of lenses, with definite, accurate, reflectors and condensors of light, to higher illuminate the object under the glass. Still finding that rays of light were wasted, the idea was conceived of looking through a drop of clear oil. Now the scientist prepares his specimen, and with his high-power glasses and light condensors in order, drops one drop of oil on the cover-glass and places the object for investigation under the microscope. He looks down through glasses of immense power, down through a drop of clear oil, and sees what? If the material is from a tuberculous lung, he finds the infinitesimal object that causes it; if the material is from a diphtheritic throat, he finds objects that cause diphtheria. He is looking at the cause of disease.

A needle is used to make a tiny prick and a very small drop of blood results; that almost imperceptible speck of blood, when magnified, may reveal abnormalities that belong to some one disease. These investigations of causes, the study of great epidemics, the known causes of contagion, and methods by which contagion may be propagated and transported; the results obtained by using artificial causes; all of this, and much more, lead thinking, observing medical men up to a new and progressive era.

Before going any farther, let me call your attention to the word *prophylaxis* now in common use. It is from a Greek word meaning *to guard before*. We speak of prophylactic measures, meaning preventive measures. In order to prevent a disease, it is necessary to learn the cause of it. Then by removing the cause, the disease is not cured, but done away with. The old problem of cause and effect looms up before us.

The known causes of disease are so numerous that their consideration is appalling. Tonight we will not bother with the unknown causes or meet dangers we know not of. A short review of the more commonly known causes will, in a general way, lead up to preventive measures.

Please remember that the germ theory is now established, and that the germs peculiar to many diseases are now known. Time will bring to light many that are unknown. The causes of disease are considered under two general heads: external and internal. External causes are those originating outside of the human economy; internal causes are those arising, or existing, within the body. Much more is known of external than of internal causes. Among the internal causes are age, sex, heredity, race, excessive or defective development, and many other things. Childhood, middle life and old age have diseases peculiar to those periods in life; or rather, certain periods of life predispose to certain diseases.

Diphtheria, scarlet fever, measles, mumps and whooping cough are essentially diseases of childhood. Typhoid fever is a disease of early adult life. Cancer in its various forms occurs usually in the middle or prime of life. Later on in life come diseases of the vital organs: the heart, the liver, the brain, paraylsis in its various forms, gout, pneumonia, etc. True it is, that any of the diseases can and do invade the system at any age, but they are so common at certain periods that they belong to those periods. Sex plays its part as a cause and there are diseases peculiar to each. Heredity looms up like a deadly nightmare, and whether we inherit a disease, or inherit a predisposition to a disease, and then acquire it through accommodating surroundings, or methods of life, has caused many acrimonious debates, many pages of literature and probably a good deal of insanity. The subject is not open for discussion now. Certain it is that we inherit family traits; the color of the hair, the color of the eyes, the physical and mental build, tastes, good or bad—why not with other family characteristics may not family diseases be inherited?

Race types show a predisposition for, or an immunity from, certain ailments. Cholera seldom invades China and scarlet fever is almost unknown in Japan. Measles are mild and almost harmless with us, but severe and fatal in some warmer climates. Yellow fever passes the negro by, only to revel in death when it attacks the white man.

Too fast or too slow development of any vital part may produce a depraved undertone of the whole system and bring dire results.

There are many disorders that originate with the economy due to faulty work on the part of some one organ, thus throwing others out of their normal condition and interfering with important functions. For any machine to do good work there must be harmony of action in all its parts. It must be kept well oiled and the fire must receive fuel with regularity. All of this is true, figuratively speaking, of the human machine.

The external causes of disease are almost endless. Among the more common are climate and season, atmospheric pressure, heat, cold, water, poisonous gases, poisons, occupation, lack of occupation, dissipation, density of population, venomous insects and animals, etc. The lower animals cannot stand the extreme changes of climate as well as man. Human beings may move from one extreme of climate to another, and in many ways accommodate themselves to the change, but they are more susceptible to the diseases peculiar to the new country than are the natives. The tropical countries have prevalent diseases that are unknown to inhabitants of the Arctic regions.

Atmospheric pressure has its effect on the circulation, and by disturbing the heart's action it may alter the supply of blood to other organs and thus interfere with the proper performance of important functions. Increased pressure may cause bleeding from the nose, or ears, delirium, and even paralysis. Decreased pressure may cause shortness of breath, faintness, vomiting, a blue tinge to the lips and skin. Heat produces many troubles in many ways. Heat strokes and sun strokes often cause death, or a long list of secondary ailments. Cold produces suffering and disease. Artificial and natural gas, mine gas or damp, or sewer gas, may cause a long train of ailments, or even rapid dissolution.

Poisons are "substances that destroy the life of an organism or impair the functions of one or more of its organs." Much depending upon how such substances are used or abused.

Occupation has more to do with the health than we at first realize. The writer, the musician, the telegrapher, the compositor, the milk man, the tailor, and others who continually work certain sets of muscles of the hand and forearm, have a cramp, or palsy as the result. Organists, sewing machine operatives, dancers, athletes and others, have a similar disease of the other extremities. Occupation may produce defective development of different organs or extremities and over-development of others. Students, gardeners, miners, bench-workers are inclined to round shoulders and a defective development of the chest. The laborer who carries burdens on the head is erect, square shouldered and full chested.

Lack of occupation or idleness makes an unhappy mind and an unhappy body. The hypochondriacs come largely from this class, and if they happen to be wealthy, the quack doctor and the quack sanatorium reap the benefit. The mind and body require work in order to be healthy. The laws of waste and repair must be observed. The busy men and women are the happy ones. An inactive mind becomes obtuse, an inactive body becomes degenerated. Both are ready to cultivate diseases arising from within, or bid welcome to disease from without.

I need not say much on dissipation as a cause of disease. The everyday demonstrations of that proposition bring tears of srorow and wrinkles of grief. Whilst there are many forms of dissipation, yet, as a rule, they have their origin in the excessive use of alcoholics. Then follow drug habits and other conditions that come from a body and mind diseased, degraded and debauched by alcohol. The most distressing thing in connection with this subject is the thought that innocent ones in a second generation may be burdened with disabilities for which they are not responsible and from which they are not able to escape. Preventive medicine has its greatest undertaking of the future in preventing dissipation, directly or indirectly, in all its horrible forms and terrorizing consequences.

I mentioned density of population as a cause of ill-health, and it is a cause that preventive medicine is finding hard to combat. Sunlight and pure air are essential to support a healthy mind and body. Density of population means a decrease of both sunlight and pure air. High buildings in close proximity, crowded flats and tenement houses, all have a bad tendency. Yet the density of population is on the increase. It is not the country village or the smaller towns that are now increasing in population. The larger cities are absorbing the smaller ones. Great facilities for travel, rapid transportation, and a wonderful mail system are fast doing away with the country town as a necessity.

A few years ago the farmer drove to the nearest village once a week to get his mail and the village weekly paper. Now he gets his mail and a city daily paper left at his gate every day by a rural postman. The farmer no longer trades butter and eggs, and corn and oats, at the village store. Now his butter and eggs go to the nearest city market, on fast steam or electric cars, his hay is baled, and with his corn, is shipped to the cities. This concentration of population is bringing up new problems in physiology as well as sociology. This crowding together has a tendency to bring physical and mental maladies. The strain for a livelihood, the ambition to succeed, increase in competition, this all-round high strung life means a short life and a more miserable one, than that spent where the air is pure, the surroundings more tranquil and the heart tension less liable to break.

The awful mortality among infants in the crowded districts of the cities has been and is the subject of much thought and consideration. The crowded condition of tenement districts, the vice due to such conditions, the excesses and dissipations in the densely populated regions, call for preventive measures.

The medical profession is ready and willing to do its part but that profession must have the support of laws and law-abiding people.

Water carries all sorts of impurities and many germs of disease. By using it for drink, for the bath, for washing, cooking utensils or clothing, it may cause disease. In its innocent looking substance it may carry the cause of a disastrous epidemic. The supply of pure water to densely populated localities requires scientific engineering and scientific preventive medicine.

Venomous insects and animals play their part in the causation of troubles, perhaps trifling, perhaps fatal, to humanity. The common house fly or the annoying mosquito may carry germs of disease from one person to another. The young army surgeon who demonstrated that mosquitoes could carry the germs of yellow fever from one person to another, died of that disease. The surgeon who perfected intubation in membranous croup, and thus gave surgeons the means of saving thousands of little children, died of cancer of the throat. The irony of fate—yes—

but their work, and the blessings arising from it, will live while this sad old world continues to roll.

Enough internal and external causes of disease have been given to call attention to their almost endless variety and their intensity. Fortunate indeed is he who runs the awful gauntlet and lives to three score and ten years. That three score and ten mark has stood the test of centuries. Will preventive medicine and the better knowledge of how to treat our vital organs carry a larger per cent. to the limit in the future than have reached it in the past?

In considering preventive medicine we must remember that diseases originate within the body and without. It stands to reason, then, that preventive measures must deal with many factors. What can we do to make the body resist diseases originating within itself, and what can be done to protect the body from maladies coming to it from without? We cannot go back generation to generation and eliminate constitutional taints that have crept in through inter-marriage, or direct acquirement. We must take the body as it is presented to us, and not as we would like to have it. Furthermore, it is to be remembered that age and climate and other causes make it necessary to modify prophylactic measures to comply therewith. What would do for the infant would not do for the aged. What would do in Florida would not do in Alaska.

Time will only allow a brief *resume* of the more common preventive methods. During the last war we heard a good deal about immunes. Regiments of Southern negroes were enlisted, because they were considered free from the invasion of diseases prevalent in the West Indies. Persons who have had small-pox are immune from another attack. By vaccination we make those who have not had small-pox immunes. The civilized world has unconsciously been practicing preventive medicine for more than a hundred years in vaccination. The millions of vaccination scars now worn are medals of honor to Jenner and of glory to preventive medicine. Vaccination has and has had its enemies. None of them are recorded in history, but oblivion swallows them, whilst Jenner's name grows brighter and brighter. When I hear some one railing against vaccination I am reminded of the dog barking at the moon. It amuses the dog but does not disturb the moon.

The modern treatment of diphtheria consists in the use of antitoxin. Toxin means poison and anti against. A substance is injected that acts against the poison of diphtheria. The physician goes farther than that, he injects anti-poison material into those who may be or have been exposed to this disease. The dose thus given is not so potential as the one given when the disease is present. These doses to prevent contagion are spoken of as immunizing doses. Diphtheria is not the only disease that has an antitoxin. It is not at all improbable that antitoxins will be found for many diseases. If the development of the diphtheria antitoxin stops death's harvest from that relentless disease alone, preventive medicine has won a bright jewel for its crown. Some persons seem to be immune to all diseases under all circumstances; others take, or catch, everything that comes along. Why, we do not know. This immunization, both natural and artificial, is not understood. Some of the young men who are now picking up the Æsculapian gauntlet may startle the world with a solution.

There is one thing sure, and that is that the possessor of a sound mind and a robust body has a great advantage. No superstructure will stand the storms of life unless the foundation be firm. This building of the foundation begins generations back. It must then be perfected and protected in its growth by preventive measures. Many ways are required and devised to prevent the attacks of external diseases. We sterilize the water and milk used to kill germs. We make our wearing apparel of cotton, or wool, as the climate and season may require. The idea being to regulate the external influence. Not enough body covering in cold weather allows the surface of the body to become chilled. The blood is driven from the surface to the interior. Internal organs are congested and an unhealthy condition results. Too much body covering or sun heat in hot weather produces sun stroke, heat stroke or prostration. We use antiseptics and disinfectants in many ways to kill germs and insects that may cause illness. We build houses with ventilators to carry out the poisoned air. We build them to protect us from the heat and the cold. Different latitudes require differently constructed houses. All of this is practicing preventive medicine. Since the contagion of diseases has become better understood; since the avenues through which contagion travels have become better known; since the virulence and life of contagion have been discovered, there has developed the idea of isolation. We call it quarantine. To quarantine means to keep the disease away from the people and the people away from the disease. The word is from the Latin quaranta, meaning forty, and was used originally to indicate "the time during which a vessel from ports infected with contagious or epidemic diseases was required by law to remain outside the port of its destination, as a safe-guard against the spreading of such diseases." Nowadays all cases of contagious diseases of a dangerous type are quarantined by boards of health. Our sea coast and great water-courses are watched over by the marine hospital service. This arm of defense or protection against the invasion of epidemics has under its control quarantine stations. Should a representative of this country in some foreign land telegraph that a vessel from a disease infested port is on its way to our shores, our marine hospital corps is on the lookout for it. Or, if it is known that an epidemic is existing in some other part of the world, this effective marine service holds out all vessels coming from that section until all danger is averted—by time, fumigation, or whatever means is necessary.

One town may quarantine against another, in order to protect the inhabitants. The marine hospital service and boards of health now existing throughout the land are agents of preventive medicine. They were originated and instigated by the medical profession, as the germ theory of disease developed, and the era of preventive medicine dawned.

Boards of health are living monuments to prophylaxis. Perhaps you remember that I mentioned density of population as a cause of the many ills that flesh is heir to. I might add that it is the young and weak who suffer. Densely populated places are not invaded by the diseases peculiar to old age. Old age, excepting of the premature variety, is not there. It looks to me as though the quick transportation now developing, as electric power develops, would, in part at least, solve the densely populated and tenement house question. The time is coming when for a penny or two one can leave the heart of the cities and ride to the suburbs. Homes, humble though they may be, may be built outside of the cities and with cheaper rapid transit to and from work the people should get good air in their homes, if not in their working places.

It is a great pity that all cannot have sunshine and pure air. These two blessings are great germ killers, for germs love darkness, rather than light, and they thrive and multiply where the air is impure. The life-giving and life-saving properties of sunshine and good air are being appreciated as they never were before. Some years ago persons suffering from consumption or even threatened with it, were shut up in hot, closed rooms. They had nauseous cod-liver oil poured down them. Now these people go to a sanatorium, where they sit or walk in the sunshine by the hour. They sleep in open tents, with the temperature below the freezing point. The body is kept warm with furs and wraps, but the lungs inhale the frosty air, laden with oxygen and made pure by the sun's rays. What is the result? The germ of consumption is killed. Microscopical examinations of the expectoration from time to time show that these germs—these tubercle bacilli—are decreasing. These sanatoriums are not expected to cure advanced cases of consumption, but they are expected to prevent its development in those who inherit it, or to speak from the modern standpoint—those who inherit a disposition thereto. This nation, and several of the states, now have these sanatoriums. Ohio is to have one. It now looks as if consumption would have a preventive, if not a cure.

The pale, puny, listless child is taken from the tenement house and sent into the country. In a few days the pallor is changed to the blush of health, the soft muscles are solid and rounded with fat. The listless eye is supplanted by the alert gaze and the whole picture is changed. It has only received what the Creator intended that every child should have, but is deprived of by the greed of man.

Hygiene is defined as "the science that treats of the laws of health in the broadest sense." There are treatises on personal and public hygiene, on military hygiene and other divisions of the subject, as, the hygiene of infancy and of old age. The whole subject, however, points to one thing—prevention of disease. Public hygiene includes the subjects of water supply, filtration, drainage, sewage, the cleaning of streets, the disposal of garbage, the removal of nuisances, the supervision of dairies, the investigation of prepared foods, the care of the dead, the care of public buildings and grounds, the supervision of plumbers, the inspection of public conveyances, etc. Personal hygiene teaches how to care for the body and covers the whole subject of clothing, bathing, feeding, sleeping and exercising. The proper care of the head, the feet, the eyes, the mouth, the ears, the nose, the throat. The neglect or abuse of any of these may and does make trouble. What to wear and how to wear it. When to bathe and how. When to eat and what. When to exercise and how much. Every person has individualities of mind and body and each individual should study his or her own prophylactic needs. Our high school could, with profit to the pupils, teach less of languages, everlastingly dead, and more of hygiene.

Preventive medicine must be taught to the young, when the habits of life are forming. The young must learn the preventive medicine habit. This whole subject of preventive medicine is one of national importance. The life of any nation depends on the mental and physical stamina of its people. A proper understanding of the simplest laws of health; a proper appreciation of the necessity of sunshine, pure air and pure water will bring up generations that will sustain any race.

The efforts of the medical profession to promulgate preventive ideas and to establish prophylactic methods cannot succeed unless the people help on in the work. The growth of practical preventive medicine depends on the intelligent co-operation of the people. I mean the educated people. We do not expect anything from the uneducated. This latter class retard all advances and cry out against progress. Only the fear of punishment will make them succumb.

Ignorance and superstition must give way to light. The commercial doctor will practice medicine for what there is in it for him. The professional medical gentleman will in the future, as in the past, live for others, doing what he can to cure the afflicted and to protect the well.

ADRENAL EXTRACT IN URETHRAL HEMORRHAGE.*

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Inasmuch as internal urethrotomy is a measure that is rapidly being discarded or looked upon with considerable discredit by most genito-urinary specialists, extensive hemorrhage from the urethra is for the most part a matter of uncommon occurrence. When it does occur, it is usually of such a troublesome and obdurate character that any measure devoid of pain and discomfort which will insure prompt and efficacious control, and which can be easily administered, should find valuable place in the therapy of this unpleasant complication.

According to the report of the following case, adrenal extract appears to possess such properties, and though it has already found a very general and valuable place as a styptic in the field of surgery, I am not aware that it has ever, heretofore, been used under similar circumstances.

Case: J. L., age 23 years, who has passed through a previous infection of gonorrhoea, about two years previous to his last infection, of a protracted character, was infected the last time May 10, 1902. Under the use of anterior urethral albargin injections, and systematic irrigations into the bladder of large quantities of solution of permanganate of potash, 1 to 5000-3000, at stated intervals, with occasional passage of sounds, patient materially improved, but several indiscretions, during convalescence, brought on exacerbations, before complete recovery was fully established. The last exacerbation occurred September 22, 1902, but by October 3, 1902, the prethritis had again yielded to routine treatment, so that the urine contained only a few filaments, and only a slight mucous discharge persisted in the form of a small "good-morning drop." At this stage, systematic dilatation with the anterior and posterior Kollmann dilator were instituted, in order to induce absorption of infiltrated areas, and to express the over-burdened glands of Littre of their purulent contents. The anterior urethra was dilated on October 13 and 17, beginning with a 30 ch. (French), and increasing to 35 ch. The meatus barely accommodated a 22 ch. cylindrical pointed Benique sound. On October 20 the urethra, immediately anterior to the sphincter, was dilated to 40 ch., and the portion immediately posterior to the fossa navicularis to 32 ch., without any marked discomfort or pain to the patient. The withdrawal of the dilator was followed by a profuse hemorrhage, which the injections of astringents, in the form of zinc sulphate, hydrastine, potassium aluminum sulphate, irrigations of hot water, etc., failed to check or materially control. After patient had bled profusely for almost half an hour, the hemorrhage was temporarily controlled by strapping the penis tightly from before backward with circular turns of narrow strips of adhesive plaster. Patient, who was a Jew, stated that he always bled profusely, and that epistaxis or hemorrhage from an extracted tooth had always been difficult to control. When the dressing was removed the same afternoon, in order to permit the act of micturition, the removal of several long heavy clots was followed by hemorrhage, equal in severity to that immediately following the dilatation, six hours prior, and which likewise failed to be favorably influenced by astringent injections and irrigations. The penis was again strapped and patient placed in bed. The subsequent removal of the dressings, for the purpose of urination, was followed each time with profuse hemorrhage, which soon rendered the patient extremely weak, pale and uncomfortable. The hemorrhage failed to yield to the compression of the penis with bandages, and when patient was visited, the morning of October 21, the bed clothing and under garments of the patient were profusely stained with blood, and patient was in an anemic and very much weakened state. The vessels into which the patient received the bloody discharge, contained a large amount of thick coagula and bloody fluid. The application of a fresh dressing and a compression bandage controlled the hemorrhage imperfectly, and astringent injections only seemed to excite a more active hemorrhage. The hopeless character of the treatment, and the gravity and unpleasantness of the situation, impelled me to adopt new measures. Knowledge that adrenal extract has proven to be an excellent styptic in other fields of surgery, particularly in rhinology and laryngology, though its use in this situation was entirely new to me, a 6% solution was injected with a one-fourth oz. urethral syringe. The effect was almost magical; as soon as the clots were removed and the surfaces were cleaned, all evidence of bleeding entirely disappeared, and patient promptly regained his comfort and composure. There was slight manifestations of fresh hemorrhage, especially after urination, at intervals of 12 to 18 hours, for the next 48 hours, but each attack was promptly and completely controlled by a single injection, which was retained for a few minutes at a time. The last hemorrhage, which was of very slight character, occurred October 25, and from this time on the urethritis pursued a natural course toward uninterrupted recovery.

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*Read before the North Kentucky Medical Society, at Williamstown, Ky., November 13, 1902.

Additional note: As stated above, that although the aqueous 6% extract solution was employed in this particular case, purely as a tentative measure, its action and nature was sufficiently familiar, at this time, to assure me that its application would probably be followed by the desired results. Even at the time this paper was prepared and read, before the North Kentucky Medical Society, November 13, 1902, no extensive research into the literature had been made, and I was unfamiliar with any parallel cases. In 1901, I employed weak injections and very mild urethral irrigations of adrenalin as a therapeutic measure in the treatment of a limited number of cases of gonorrheal urethritis, but the negative character of the results, promptly induced me to discontinue this form of treatment. A more careful examination of the literature reveals that adrenalin has been rather extensively employed in genito-urinary surgery, not only in a general sort of way, but also along the same lines indicated in the above mentioned case. Edward L. Keyes (1) has employed it in meatotomies, but finds that the hemorrhage is only temporarily allayed, and the treatment should combine local applications of glutol. In vesical hemorrhage, particularly those forms, caused by cancer of the bladder, or form an enlarged and inflamed prostate, it is not a very satisfactory or reliable form of application. Frisch, (2) on the other hand, finds that when the bladder is filled with a 1 to 10000 solution of adrenalin, it is an excellent styptic, and ensures a clean, unclouded field for cystoscopy. In cases of urethral stricture, injections of adrenalin, materially contract the swollen and congested mucosa, and facilitate the introduction of sounds and instruments. Cases of complete suppression of urine, following prostatic hypertrophy, have been materially benefited by adrenal injections. Gans, (3) also found it to be a very effective remedy for controlling the hemorrhage following posterior urethrotomy. Howard, (4) ascribes successful results to 1 to 4000 irrigations in gonorrheal urethritis, but supplements this treatment, for which he claims no germicidal properties, with 1% protargol irrigations.

The use of a 1-1000 solution of adrenalin, for the control of an urethral hemorrhage, is too weak, I believe, to be adequately effective, as attested not only by the reports of Keyes and others, but also by an instance of personal experience and also by the experience of several Cincinnati confreres. Dr. R. C. Jones, of Cincinnati, reported to me that he was entirely unsuccessful in attempting to control a case of urethral hemorrhage, following internal urethrotomy, with a 1-1000 solution of adrenalin. A case of chronic posterior urethritis, which was complicated with a rather severe and persistent terminal hematuria, I temporarily effectively controlled by daily instillations into the posterior urethra by means of a Guyon syringe, of 5. doses of a 6% solution of adrenalin. Patient after a few days of treatment was instructed to make the instillations himself, which were unsuccessfully carried out, because the unscrupulous druggist in filling the prescription substituted a 1-1000 solution of adrenalin for the 6% solution.

The 6% solution can be injected into the urethra, without the danger, I believe, of any untoward results. My personal experience, however, does not permit me to state whether or not, the same holds true for injections into the bladder, but I would not hesitate to employ it in this locality also, when specially indicated, at least in small quantities.

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SOME SURGICAL COMPLICATIONS AND SEQUELÆ OF TYPHOID FEVER.

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There is no disease to which the human body is subject that can be more strictly classed as medical than typhoid fever. While this is true, it can also be said there is none other that has more surgical phases by way of complications and sequelæ. To appreciate these various pathological conditions it is necessary to briefly consider the germ of typhoid fever known as Eberth's bacillus, which is more largely responsible than any other germ.

It is not necessary in this paper to consider the morphological properties of the typhoid bacillus nor to discuss the various methods of cultivating it and preparing slides for microscopical examination. The differential points between the colon bacillus, a constant inhabitant of the intestinal tract and the typhoid bacillus are sometimes difficult to determine, but inasmuch as some of the complications are due to the former as well as the latter we will not discuss this feature. There are, however, some properties of the typhoid bacillus that should be considered.

We will first consider its viability. This germ is saprophytic, as well as pyogenic and will under favorable environments and conditions live for an indefinite period, both outside of the body and inside. It may be found outside of the body, in dust, ice, oysters, garden soil, water, milk and in many other places. It has been found in the human body several months after death. When we consider that cold does not kill it and that it requires heat to a degree of 212 to destroy it, its resistance to destructive influences will be understood.

In the subject, however, under consideration we are dealing largely with the germ as it manifests itself in the living body. During the progress of typhoid fever these germs may be found in various fluids and tissues. They may also be found weeks, months and years after the fever has subsided.

Bruni records a case of osteomyelitis six years after an attack of typhoid fever. The typhoid bacilli were found in the pus. Sulton reports a similar case six years after the initial fever. Many other observers have reported cases running from three months to several years. The writer has had a number of cases of periostitis, chondritis and osteomyelitis ranging from a few weeks to three years. The evidence of the viability of the typhoid bacilli in other tissues is also established. The bones and cartilages, however, are the tissues most affected. When bacteriological tests are made in all cases of chronic suppurations, the typhoid bacilli may be found oftener than formerly suspected, thus relieving the tubercle bacilli of the burden of being the causative factor of chronic diseases of the bones in such a large percentage.

The next interesting property is that of diffusion. Dr. Kinsman, in a very scholarly address at our last meeting, stated very forcibly that the bacillus typhosus is found inside of the body as well as outside; that they are not only found in the intestinal tract, but in the various tissues and fluids of the body. It has now been well established that all the organs, tissues and fluids of the body may be infected. In typhoid fever patients the germ may be found in the blood. In fact an early diagnosis can in some cases be made by an examination of the blood. Park claims that when present in the blood they are most numerous in the first twelve days of the disease, diminish rapidly after the third week and are found only in exceptional cases during the fifth and sixth weeks. It is claimed by some pathologists that the bacilli reaches the blood through the lymphatic vessels and thence to other tissues of the body. The portals of entry into the body are mainly by the intestinal tract. It is claimed by some observers that the germ may enter through the respiratory organs; this, if true, is an important clinical factor in preventive medicine. Now that the housefly and mosquito are known to be common carriers and propagators of microbes, the skin must be considered a portal of entrance as well as the mucous membranes.

With the germ in the blood no tissue of the body is exempt from infection. Serious complications may arise from this, among them might be mentioned arteritis, phlebitis, endocarditis, hepatitis, chondritis, osteomyelitis, abscesses in various parts of the body and meningeal troubles. The fetus may become infected, thus producing a serious complication to the mother. Another interesting and exceedingly important property of the typhoid bacillus is its conduct in the presence of pyogenic and other bacteria. Under certain conditions the typhoid bacillus is pyogenic, but it is only in the presence of the true pyogenic germ that it becomes actively so. Indeed this property is so marked, that surgical conditions that occur during the progress of the fever and classed as complications are mixed infections, and those that occur after the fever and classed as sequela are due mainly to the more chronic effect of the bacilli alone.

It has been demonstrated that the typhoid bacilli are inactive and die in the presence of staphylococci, but become active and sometimes virulent in the presence of streptococci. The fact that in many cases of abscesses during the course of typhoid fever and immediately following the typhoid bacillus is not present, may be explained by this inimical action of the staphylococci.

That mixed infection is not uncommon is manifest when we consider the intestinal ulcer and those of the mucous membranes generally, and the bed sores that often occur in typhoid fever.

With these bacteriological considerations of the typhoid bacillus we are prepared to consider the complications and sequela that may develop during and following an attack of typhoid fever.

One of the first complications to which I wish to call your attention is that of typhoid gangrene. Fortunately this fatal complication is infrequent. Typhoid gangrene is due primarily to the action of the specific germs upon the blood vessel. The typhoid bacilli tend to form in clumps and when the blood is charged with these colonies they may find lodgement in the heart producing endocarditis, or in the arteries producing arthritis, or in the veins producing phlebitis. Thrombi form at these points of irritation on the serous coat and obliterate the lumen of the vessel, or may form an embolus. This condition is more often found in the legs than in other portions of the body. The general symptoms of gangrene caused from obstruction of the circulation are present. If an artery is occluded the gangrene is dry. If the occlusion is in a vein there is moist gangrene. The prognosis of this complication is exceedingly grave. The treatment is that applied to gangrene due to other conditions. In the extremities amputation is required in most cases.

By far the most common sequelæ are the bone affections. There seems to be no time limit to the developments of bone lesions. The disease occurs in almost every type of bone trouble. The most frequent, however, are necrosis, caries, osteomyelitis and granulomata. Children and adolescents are peculiarly subject to bone lesions. Park says that two-thirds of the cases occur in childhood. The bones of the lower extremities are the most frequently affected.

I have met with quite a number of cases of caries of costal cartilages, sternum and ribs in persons from twenty-five to fifty years of age. The points of diagnosis are mainly based upon a previous attack of typhoid fever, the chronicity of the trouble, indolence of the ulcer, tendency to recur after operation and the presence of typhoid bacilli. The treatment consists in a thorough removal of the infected parts. It is often quite difficult, especially in the sternum and costal cartilages to remove the infected area. Before I understood this diffusibility of the germs in surrounding tissues I frequently had recurrences in cases that I operated. I have in mind now a lady, forty-five years of age, on whom I operated three times for caries of the sternum. The last operation I removed the ensiform cartilage, a number of the costal cartilages, all of the body of the sternum up to the third rib. A complete cure followed. It left an unsightly scar, but nothing short of complete excision would eradicate the infection. In the bones of the extremities the same thoroughness is necessary.

Abscesses are frequent pathological conditions. They appear most frequently as complications, occasionally as sequela. They may occur as boils or abscesses on different portions of the body or in deeper tissues and organs. These abscesses may not always be due to the typhoid bacilli. The colon bacilli have been found in a number of cases. The common pyogenic germs are alone in evidence in many cases. It is well understood that the colon bacillus occasionally becomes actively pyogenic. Active inflammation of the parotid gland frequently terminates in an abscess and is undoubtedly due primarily to the typhoid bacillus and later to mixed infection. This complication may terminate in a permanent enlargement of the infected gland.

Osler says the presence of boils in typhoid cases is more common since hydrotherapy as a treatment has come into practice. Dr. Kinsman explains this peculiar condition on the ground that the use of cold on the skin drives the blood from the capillaries and devitalizes the tissues by lowering the temperature, thus giving the pyogenic germs an opportunity to overcome the normal resistance.

The abscesses occurring in the liver or surrounding tissues are more often due to the colon bacilli than to the typhoid. The etilogical factors in bed sores are devitalization of the tissues from a weak circulation and pressure. Recognizing these factors modern practice has reduced the occurrence of this complication to a very small percentage. The treatment of abscesses depends much on the location and is palliative and operative. The well-known surgical rule to evacuate pus wherever and whenever found should obtain in all cases. The danger of an operation during typhoid fever or in the convalescent period must not be overlooked, but on the other hand the toxic effect of pent-up pus is a menace to life of still greater magnitude.

Arthritis is a very common complication. There are three forms known as typhoid arthritis, septic arthritis and rheumatic arthritis. The surgical forms are the two former ones. The cause of typhoid arthritis is probably due to the presence of the typhoid bacilli. It may occur as a complication, but is usually a sequela. It usually affects but one joint and is most frequent in the hip, although other joints such as the shoulder, elbow, wrist, knee and ankle may be the seat of trouble. It may come on spontaneously or as the result of infected foci in the epiphises.

In children the disease may be mistaken for rheumatism or tubercular arthritis. A history of typhoid fever followed by synovial distention usually without much pain, and chronic in character will suffice to make a diagnosis. If unrecognized and treated properly, dislocation of the joint may occur. It is claimed by some observers that 50% of the hip cases result in dislocation. The treatment consists in properly applied splints that immobilize the joint and at the same time maintain the normal relation of the joint.

Septic arthritis is exceedingly fatal. The pathological conditions are those of suppurative arthritis from other causes and demands the same prompt operative treatment. Evacuation of pus, flushing the joint and drainage.

Another serious complication and one that has been attracting the attention of modern surgeons is perforation of the bowels. The typhoid bacilli are etiological factors in perforation only so far as they may cause the ulceration in the intestinal glands. After perforation takes place they may be found in the peritoneal cavity, passing there through the opening.

It is not necessary to discuss the pathology of perforation. Osler says that it occurs in 2.7 per cent. of cases. It may occur as early as the first week, but in the majority of cases in the third or fourth week, and as late as the sixteenth.

The symptoms may be classified into immediate and remote. The former include those symptoms that follow the perforation, such as pain, sudden and sharp, paroxysmal, and increasing in intensity, usually located in the hypogastric region if in the upper portion of the intestines. If the pain is low down it usually affects the bladder, causing tenesmus. There is tenderness on palpation. The later symptoms are those of diffuse peritonitis. With such symptoms in any case a blood count should be made immediately, and if leukocytosis is present there can scarcely be any doubt of perforation, shock may or may not be present. The prognosis is exceedingly grave. Owing to a possible mistake in diagnosis, it is difficult to determine the mortality rate without surgical aid. The mortality of operated cases can be determined definitely. It is conceded by physicians that perforation is probably fatal in 95% of cases. Therefore, if the diagnosis is clear repairing the opening is the only remedy. Of the one hundred and thirty-four cases reported by Fitz, 37.3 per cent. died in the first twenty-four hours. In the first week 84.4 per cent. Statistice are favorable to an operation. Keene reports sixty cases, with four recoveries in fifteen cases operated within twelve hours, with six recoveries in twenty cases operated within twenty-four hours, and one recovery in thirteen cases operated within forty-eight hours. He concludes that if the operation is not done within twenty-four hours after the perforation there is practically no hope of recovery. The character of the perforation and the time of operation determines largely the possibility of a favorable result.

Hemorrhage in some form is perhaps the most frequent complication of typhoid fever and demands prompt attention for its control. The physician is usually able to cope with bleeding by administration of medicines or their local application. Hemorrhage from the bowel sometimes is uncontrollable and the patient succumbs. The question of operative interference in these cases is being discussed by surgeons. A few favorable cases have been reported, but there is very little as yet to encourage interference. So large a percentage of these cases get well through medical measures, that a physician is not likely to submit his patient to the dangers of an operation until exsanguination has placed him beyond the possibility of recovery. No surgeon would care to operate under such circumstances.

The recognized frequency of disease of the biliary apparatus during the course of typhoid fever or following it has led to a careful study of the relation of this condition with the typhoid germ.

Experiments on animals have demonstrated the activity of the typhoid bacillus in producing inflammatory changes in the ducts and gall bladder. The germ has been found in pus from ulceration cholecystitis and also under other conditions. Surgical interference in this complication or sequela follows occlusion of the common duct, the formation of gall stones or suppurative cholecystitis.

There are several other complications or sequela that are distinctly surgical in their treatment, but inasmuch as it was the purpose of the writer to consider only the most frequent and important ones, further mention will be omitted.

Dr. Alonzo S. Gracelon, of Lewiston, Me., ex-Governor of Maine, was present at the New Orleans meeting of the A. M. A. and allied organizations. Tuesday the 5th was his ninetieth birthday. On this occasion his confreres presented him with a beautiful loving cup, and gold-headed cane. Dr. Gracelon was graduated in 1839 from the Medical College of Ohio.

Society and Association Proceedings.

ACADEMY OF MEDICINE.

Regular Meeting, April 6, 1903.

F. W. BLAKE, M. D., President. J. D. DUNHAM, M. D., Sec'y.

This meeting was held at the Hotel Hartman. By invitation Dr. John H. Lowman gave an address on "Tuberculosis and the Sanatorium," after which the annual dinner of the Academy was served to members and invited guests

Regular Meeting, April 20, 1903.

Dr. J. B. McComb read a paper on "Eczema," which was discussed by Dr. C. O. Probst.

The following resolution by Dr. Kinsman prevailed: That the Columbus Academy of Medicinue take immediate action to carry out the directions of the Ohio State Medical Association contained in final section five, chapter twelve of the By-Laws of said Association which are made a condition by the O. S. M. A. to receiving a charter.

On motion, the COLUMBUS MEDICAL JOURNAL was requested to publish a notice to all reputable and legally registered physicians in the county apprising them of their privileges under the Constitution, and the President and Secretary were directed to draw up such notice for publication. Their statement is published on page 237 of this issue.

Meeting, May 4, 1903.

Dr. Probst reported a case of erythema scarlatiniforme. Dr. Kinsman reported a atypical case of epileptiform seizures. The latter was discussed by Drs. Rutter and Wilson.

On motion of Dr. Timberman a committee was appointed to confer with a similar one from the Franklin County Medical Society in reference to union of the two organizations.

Dr. J. W. Sherwood was elected to membership.

FRANKLIN COUNTY MEDICAL SOCIETY.

Regular Meeting, April 14, 1903.

SHERMAN LEACH, M. D., Pres. C. W. MCGAVRAN, M. D., Sec'y.

Dr. D. N. Kinsman delivered an address on the

DIAGNOSIS OF TYPHOID FEVER AND ITS TREATMENT.

Dr. Kinsman emphasized the importance of a careful study of the blood as a means of diagnosis, and detailed the methods which are of most scientific value. In treatment he recommended albumen water diet, and intestinal antisepsis by means of acetozone, thirty grains to the gallon of water, given at the rate of about two ounces an hour. Of a series of thirty cases recently treated at the Protestant Hospital there had been no death. No tympany in any case.

Dr. Waters had used acetozone with uniformly good results. He gave it in about the same quantity and recommended egg lemonade nutriment.

Dr. Allaman, Interne at Protestant Hospital, confirmed Dr. Kinsman's report of the cases treated at the hospital.

Dr. C. M. Taylor restricted the diet and used carbolic acid, one drop per hour, as an intestinal antiseptic and antifirmentative. The paper was further discussed by Drs. Sanor, Lisle and Wardlow.

Regular Meeting, April 28, 1903.

The paper of the evening was by Dr. W. J. Means on "The Surgical Complications and Sequela in Typhoid Fever. See page 209.

Drs. C. C. Kirk and Ernest Scott were elected to membership in the society.

A committee was appointed to extend an invitation to the physicians of the county to avail themselves of the privilege offered by the Constitution and By-Laws of membership in the society.

A committee, consisting of Drs. C. M. Taylor, W. J. Means and Sherman Leach, were instructed to send out a circular letter to the physicians and also to publish an invitation in the COLUMBUS MEDICAL JOURNAL. See their open letter on page 236 of this number.

FIFTY-EIGHTH ANNUAL SESSION OHIO STATE MEDICAL ASSOCIATION, DAYTON, OHIO, JUNE 3-4-5, 1903.

The Ohio State Medical Association will meet in Dayton, June 3, 4 and 5, and from information received by the Committee of Arrangements, this will be the largest and most interesting meeting that the Association has ever held. From a conservative estimate, the membership of the State Association, under the new organization of the profession, will be doubled and possibly tripled this year. From all quarters we are receiving assurances of a general turnout of the profession.

The new organization brings into the State Association every legalized regular physician in every county of the state, hundreds of whom have never had any membership in nor attended any meeting of the State Association, and it is but fair to presume that a very large number of these men will, for the first time in their lives, attend the meeting of the State Association in Dayton this year. J. S. Beck, M. D., is Chairman Committee of Arrangements, and Webster S. Smith, M. D., is Secretary.

The Committee on Program promises a very attractive and interesting program. Dayton is easy of access both by steam and by interurban electric roads, of which latter there are already two. Special arrangements are provided for exhibitors, and the social features of the meeting promise to be of especial interest.

NEW ORLEANS MEETING OF THE CONFEDERATION OF STATE EXAMINING AND LICENSING BOARDS.

The session was called to order by Dr. N. R. Coleman of Columbus, O. Mayor Capdevielle was introduced to the assembly and welcomed the delegates on behalf of the city. In very graceful terms he thanked them for selecting New Orleans for their meeting place, and in the name of the city and its people bade the Confederation a most hearty welcome.

Dr. Charles Chassaignac, on behalf of the medical profession of the city of New Orleans extended a most cordial greeting to the assembled physicians.

Dr. Rudolph Matas, in an address of welcome on behalf of the medical department of Tulane University, struck the keynote of the work before the confederation of state boards, the intimate relationship of medical colleges and state examining boards, in that they should strive for a high standard of requirements for entry into the medical profession. He spoke of the attitude of Tulane University towards state licentiature, showing that, in spite of the important position occupied by that institution and its charter privileges, the members of its faculty were foremost among the members of the state society to appeal to the state legislature for the passage of the act of 1894 by which the present Board of Examiners of Louisiana was created, and was finally put into active operation after the failure of many previous efforts.

Dr. A. F. Barrow, President of the State Board of Medical Examiners, delivered a welcoming address on behalf of the body he represented. It was his earnest hope to see the adoption of such measures as will unify the work of the several state boards, and raise the standard of the medical requirements. The two great requirements of the medical profession, he said, are integrity and scholarship. The profession that does not require a test of character—a high standard of manhood—will soon degenerate. Neither must it be deficient in scholarship, nor leave a door open for fraud. He made a plea for uniform requirements for entry into the medical profession, and for reciprocity among the examining boards, which would greatly aid the general medical profession.

Dr. Henry Beates, on behalf of the Confederation, responded in eloquent terms to the welcoming address, and assured the hosts that their courtesies were most gratefully appreciated.

Dr. N. R. Coleman, President of the Confederation, in his annual address urged the importance of uniformity of medical instruction throughout the United States, and made a plea for efforts to consummate this great object. He said while there has been marked improvement in the curricula of the medical colleges of this country, and much has been done for their uplifting, there is still a deplorable lack of uniformity. He said it would be more to the dignity and benefit of the medical profession if there were fewer medical colleges.

Dr. W. F. Morrow of Kansas City, Mo., followed with a short address on the methods of examination pursued by the Missouri State Board.

Dr. McGavran of Cadiz, O., presented a valuable paper entitled "What the State Medical Act Has Done in Ohio." He said that under the law of Ohio the examining board now controlled four matters that are of paramount importance: the registration of physicians, the making of rules for guidance of applicants for state diplomas, determining what is a reputable medical school, and prescribing standards of preparation and curriculum.

When the present act was passed in the State of Ohio a copy of the law was sent to every physician and every medical school in the state. The Ohio law requires a diploma to be verified, and it requires the person presenting the diploma to be identified and to establish to the satisfaction of the board such points as his age and the length of time spent in medical study. Since its operation nearly as many applicants have failed to pass the board examinations as have passed. The board now has an official register of all practitioners, of the names of their graduating schools, the dates of graduations, etc. Since its enactment the law has compelled 500 persons to give up the practice of medicine, while more than 500 have left the state without attempting registration.

The successful administration of the registration law has made possible the present power of the board to examine all applicants for the right to practice in the state. The grades of study have been raised also in all the medical schools, and the grade necessary at examination for graduation has been made 75 per cent.

Several of the great abuses that have been corrected by the Ohio State act are the following: The absence of any kind of examinations before entrance into a medical school, the shortness of the course, the examination of candidates by those who are financially interested in their success, and the lack of facilities.

As a result of the enforcement of the law, the Ohio colleges have nearly doubled their requirements."

The physicians who took part in the discussion of Dr. McGavran's paper complimented the medical profession of the State of Ohio on the notable achievements for the establishment of higher standards in medical education and practice.

An admirable paper was read by Dr. E. L. McGehee of New Orleans on "The Relations of Examining Boards to the Medical Profession."

Dr. McGehee said that less than twenty years had been required for the establishment of a board of medical examiners in every state in the Union. Honest teachers of medicine, appreciating that commercialism controlled so many institutions of learning, made earnest efforts to lift the standard of professional attainment. These efforts were, however, futile until, by the cooperation of physicians, teachers and statesmen, a supervising board was created by the laws in each state. To these boards of medical examiners was given by advanced colleges not only cordial recognition and support, but they surrendered some of the prerogatives of their chartered rights by curtailing the privileges granted by their diplomas.

The value of the medical examining board, Dr. McGehee said, was well understood by the public in every state, every college and by the profession.

Great difficulty, he said, was experienced in securing satisfactory laws. National legislation had been suggested, but each state, jealous of her rights, was unwilling to delegate to a national board over which they have no control the decision of these matters. It remained, therefore, for this representative body to bring about concert of action and uniformity of laws.

The following officers were elected for the ensuing year: President, Dr. Harvey Beates of Philadelphia; First Vicepresident, Dr. A. Walter Suiter of Herkimer, N. Y.; Second Vicepresident, Dr. George W. Webster of Chicago, Ill.; Secretary-Treasurer, Dr. F. A. Larue of New Orleans.

The following Committee on Curriculum was also reelected: George W. Webster, Chairman, Chicago; Augustus Korndoerfer, Philadelphia; W. H. Halbert, Nashville; W. S. Ely and E. B. Harvey.

April 1, the Governor reappointed the following for a term of five years as members of the boards of trustees of the respective State Hospitals named: Samuel Wells, Youngstown, of the Cleveland; Frank H. Southard, Zanesville, of the Columbus; John E. Russell, Knox county, of the Massillon; C. R. Gilmore, Preble county, of the Dayton; Charles Foster, Fostoria, of the Toledo State Hospital.

THE COLUMBUS MEDICAL JOURNAL.

A MONTHLY MAGAZINE OF MEDICINE AND SURGERY.

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MAY, 1903.

Editorial.

A STANDARD CURRICULUM.

The New Orleans session of the National Confederation of State Medical Examining and Licensing Boards, April 4, was full of interest and important in its bearing upon the relations of the medical profession to the state.

Two measures of especial significance were adopted by that body. The first was a recommendation for state uniformity of medical examinations, and the other a standard curriculum for medical colleges, to both of which the Confederation pledged its most earnest efforts to secure adoption in the various states.

It was also urged that the question of a uniform standard of preliminary requirements for the study of medicine is unquestionably most vital to the interests of the profession. The agitation for the advancement of these requirements began with the educators themselves, chiefly through the American Medical Association. It is the hope of the profession that they may soon be raised throughout America to the four-year high school course or its equivalent.

One of the most interesting contributions from an educational standpoint was the report of the committee on curriculum, made by its Chairman, Dr. G. W. Webster, of Chicago. It was exhaustive, and was made up in great part of tables of information regarding the curricula of most of the leading medical colleges of the United States. As illustrating the lack of uniformity, and also as an aid to those who are working out college curricula, we quote freely from this report. In tabular form it gives total number of hours devoted to the medical course in the following schools: Louisville National Medical College, 6,818; Medico-Chirurgical College, 5,602; University and Bellevue Hospital Medical College, 5,512; University of Minnesota, medical department, 5,273; Western Reserve University, medical department, 5,080; Northwestern University, medical department, 5,014; Western Pennsylvania University, medical department, 4,964; Jefferson Medical College, 4,839; University of Michigan, medical department, 4,786; Colorado School of Medicine, University of Colorado, 4,784; Cleveland College of P. and S., 4,734; American Medical Missionary College, 4,660; College of P. and S., San Francisco, 4,631; Cooper Medical College, 4,628; St. Louis College of P. and S., 4,549; Johns Hopkins University, medical department, 4,532; Atlanta College of P. and S., 4,424; University of Cornell, medical department, 4,331; University of Texas, medical department, 4,318; University of California, medical department, 4,294; Hamline University, College of P. and S., 4,273; University of Iowa, medical department, 4,156; Detroit Medical College, 4,048; College of P. and S., Chicago, 4,005; Vanderbilt University, medical department, 3,926; Harvard University, medical department, 3,824; Wisconsin College of P. and S., 3,782; University Medical College, Kansas, 3,754; University of Buffalo, medical department, 3,724; University of Louisville, medical department, 3,724; Georgetown University, medical department, 3,659; Marion Sims Medical College, 3,656; Pulte Medical College, 3,626; University College of Medicine, Virginia, 3,243; Dartmouth Medical College, 3,182; Denver and Gross Medical College, 3,154; Columbian University, medical department, 3,106; Miami Medical College, 3,022; Fort Worth University, medical department, 2,892; Keokuk Medical College, 2,849; University of Pennsylvania, medical department, 2,731; Central Medical College, St. Joseph, 2,564; University of Virginia, medical department, 2,139.

The following is the relative time devoted to clinical work in the colleges named:

University of Minnesota, medical department, 2,258 hours; Northwestern University, medical department, 2,064; Cleveland College of P. and S., 1,816; Louisville National Medical College, 1,638; Johns Hopkins University, medical department, 1,604; Western Pennsylvania University, medical department, 1,440; Medico-Chirurgical College, 1,360; Cooper Medical College, 1,205; Western Reserve University, medical department, 1,200; Colorado School of Medicine, 1,094; Jefferson Medical College, 1,072; Pulte Medical College, 1,060; Harvard University, medical department, 1,043; University of Texas, medical department, 1,022; Hamline University, medical department, 1,009; Cornell University, medical department, 992; College of P. and S., San Francisco, 966; College of P. and S., Chicago, 960; Wisconsin College of P. and S., 926; Georgetown University, medical department, 916; Detroit College of Medicine and Surgery, 896; University of Michigan, medical department, 864; American Medical Missionary College, 825; University of Bellevue Hospital, medical college, 788; University of Iowa, medical department, 786; University of Buffalo, medical department, 758; Columbian University, medical department, 750; University of California, medical department, 666; Denver and Gross Medical College, 644; Atlanta College of P. and S., 598; Fort Worth University, medical department, 572; Marion-Sims Medical College, 560; Vanderbilt University, medical department, 546; University of Pennsylvania, medical department, 538; University of Louisville, medical department, 534; University Medical College, 532; Miami Medical College, 524; University College of Medicine, 510; St. Louis College of P. and S., 447; Central Medical College, St. Joseph, 338; University of Virginia, medical department, 320; Dartmouth Medical College, 230 hours.

The following standard curriculum, as recommended by the above committee, was unanimously adopted by the Confederation:

The standard curriculum, which is to be adopted as a minimum requirement for the degree of M. D., shall consist of the following: (a) The course shall consist of four terms in four separate calendar years. (b) Each term shall consist of thirty weeks of work, exclusive of holidays, and of at least thirty hours in each week, or 900 hours of actual work. (c) The entire course of four years shall consist of not less than 3600 hours of actual work. (d) This should be a standard of required work. Any elective work should be in addition to the above. (e) The average time devoted to each study in the curriculum should be approximately that in figures below. (f) Clinical work should constitute at least one-fourth of the work of the entire course."

In 43 colleges (four-year course) the average total hours are 4,142; proposed standard embraces 3,600 hours. First year average, 973 hours; proposed standard, 900 hours. Second year, average, 1,039; proposed standard, 900. Third year, average, 1,040; proposed standard, 900. Fourth year, average, 1,090; proposed standard, 900.

Below are given the average hours (numbers in parentheses) devoted to each branch in 43 leading medical colleges; the second number represents in hours the proposed standard adopted by the Confederation:

Anatomy (549), 500; bacteriology (131), 115; chemistry (375), 340; dermatology and syphilology (64), 50; etiology and hygiene (33), 30; gynecology (145), 130; histology and embryology (219), 200; laryngology and rhinology (67), 55; medicine (544), 500; mental diseases and jurisprudence (27), 25; neurology (82), 75; obstetrics (177), 150; ophthalmology and otology (106), 95; pathology (295), 260; pediatrics (72), 60; pharmacology and therapeutics (118), 110; physiology (276), 250; physical diagnosis (61), 55; surgery (596), 540.

The committee having this in charge has been working on the report for two or three years, and has accomplished a work which will be of great service in improving the courses of study in medical colleges of the country as well as in aiding in establishing uniformity of standards by state boards. The committee was continued and will report at next year's meeting a schedule of instruction for each year of the course in harmony with the above standard.

THE WALCHER POSITION IN LABOR.

Not infrequently the obstetrician overlooks the various positions which would greatly facilitate labor were they employed at the proper time. On account of the laxity of all pelvic joints during the latter months of pregnancy there is possible a nutatory motion of the sacrum. In case of slightly contracted pelves, as for instance 8.5 cm. to 10 cm., the addition of 1 cm. to the conjugata vera diam. which the Walcher position gives may allow a head to pass through the brim of the pelvis, which otherwise would not or at least would not engage unless prolonged time were given for moulding.

Again, what might be termed the opposite of the Walcher position is useful at the time of delivery of the head. With the mother in left lateral position, flex the thighs, bend and separate the knees and you will thereby increase the antero-posterior diam. of the outlet. Many authors advocate the lithotomy position during the delivery of the head, but the lateral position requires one less assistant and also allows the obstetrician to protect and care for the perineum to a much better advantage. A good description of the Walcher position is given in the Practice of Obstetrics, by American Authors, as follows:

"Walcher, in 1889, called attention to the importance of utilizing the mobility of the sacro-iliac joints in different labor. The sacral promontory lies in a plane above the axis of rotation and in front of it. The promontory, therefore, moves forward and backward, according to the changing inclination of the pelvis in different postures of the body, and the tip of the sacrum, of course, moves in a reverse direction. When the woman lies in the lithotomy position, the thighs being strongly flexed on the abdomen, the conjugate diameter of the pelvis is shortened: when placed in the dorsal position with the hips close to the edge if the table and the lower extremities hanging, that diameter is lengthened. The latter posture is known as Walcher's position." The gain in the conjugate in changing from the lithotomy to the Walcher position is variously estimated at from 5 mm. to 13 mm. In a series of observations made by the writer the increment was, in the cadaver of the non-puerperal subject, 3 mm., and in the living woman, within two weeks after labor, from 5 mm. to 7 mm. This gain may be used to advantage in moderate disproportion between the head and pelvis. In difficult extraction the patient should be placed with the thighs in full extension till the largest circumference of the head has passed the brim.

It may be noticed that the stain of healthy lochia upon the napkin differs considerably from the stain of putrid lochia.. The former will show the stain of a drop, whose center is red and the edges almost colorless and poorly defined, while the latter shows a pale center and well defined red edges. INGLIS.

OHIO MEDICAL UNIVERSITY COMMENCEMENT.

The eleventh annual Commencement of the Ohio Medical University was held at the Great Southern Theater Thursday afternoon, April 16. The house was crowded with friends of the graduates residing in Columbus and those from their respective homes. The student body, in Oxford gowns and caps, with members of the faculties and Board of Trustees, occupied the stage, which was tastefully bedecked with college colors. Exercises opened with an invocation by Rev. N. W. Good, pastor of Third Avenue M. E. Church. He was followed by Dr. James U. Barnhill, Vice Chancellor of the University, who expressed regret at the unavoidable absence of the Chancellor, and extended a cordial welcome to the friends of the graduates and of the University who had honored the occasion by their presence. He spoke of the uninterrupted growth of the University, this being the largest graduating class in its history, and this notwithstanding the courses had been lengthened, fees increased, and the standard for entrance and the requirements for graduation raised. Its prosperity was attributed to enlarged facilities afforded year by year, improved methods of instruction and to the fostering care which the Capital City has ever shown to educational institutions.

The principal address was by Rev. Carl G. Doney, pastor of King Avenue M. E. Church of this city. This interesting address will appear in the next issue.

Dr. Albert M. Bleile delivered the address on behalf of the Faculty. He congratulated the graduates on the completion of their prescribed courses. The classes were composed of 130 graduates. The medical class of 58 graduates was the largest in Ohio. The dental class was second largest in the state. Despite the size of the medical class there were only five failures during the year. With other valuable advice he admonished all to be "studious and cleanly," the latter being scarcely second to godliness. Conveying to each member of the graduating classes the kindest wishes of the Faculty, he bad them all Godspeed in their life work.

The conferring of degrees was by Prof. William R. Lazenby, Secretary of the Board of Trustees. The exercises closed with a benediction by Rev. W. H. Lewis.

A complete list of graduates from the three colleges follows:

Medicine: Frank P. Atkinson, Eben L. Brady, Clifford H. Bumgardner, Frank E. Bird, Charles R. Bonzo, Proctor E. Benner, Edgar V. Berry, Harry B. Blystone, Pinckney S. Bone, Murat H. Cherington, James B. Dougherty, Nannie B. Drake, George W. Davis, Enos G. Denison, Cassius G. Dew, Verne A. Dodd, Walton F. Dutton, Melvine Dresbach, Earl E. Evans, John B. C. Eckstorm, Clark T. Elder, Alonzo M. Forsythe, John H. Fears, Louis G. G. de la Mache, Ralph P. Gaskill, Ned D. Goodhue, Glenn I. Goodrich, Clarence E. Gourley, George F. Gourley, Walter P. Hanning, Levi W. Hunt, Jay C. Johnson, Bernard J. Kendell, Omie J. Leatherman, Daniel E. Little, Manley S. Lawrence, John W. Millette, Olin B. Martin, Clyde W. Mummert, William B. Nye, Alvey A. Partello, Cornelius J. Ridgley, James M. Rector, Lester D. Rickey, Jesse B. Sampsell, Florence P. Simms, Robert Simms, Francis S. Swain, J. E. Hancock Shorb, Thomas H. Shorb, Clark M. Smith, Harry M. Smith, Roy E. Smucker, I. Herbert Tobias, Fred D. West, Kensie S. West, John W. Whittus and George W. Whitehead—58.

Dentistry: Carl A. Allensworth, Robert L. Armstrong, Orville T. Atwell, Charles A. Beck, Joseph B. Bell, James E. Berry, Alexander C. Buffington, George W. Bourne, Horatio A. Boulger, William B. Carr, Charles B. Cox, Homer C. Crawford, Charles C. Cummins, Alexis E. Caron, Wilbert R. Davis, Ervin G. Dougherty, James C. Downar, Preston F. Dixon, Carl J. Fackiner, George H. Foster, Walter D. Franck, Phelps M. Freer, Mitchell A. Gebert, Frank A. Goldenstar, Frank S. Goss, Harry W. Groves, Walter F. Hall, George E. Harrison, Charles H. Herbst, Ernest F. Izin, Carl B. Jeffrey, Karl Y. James, Charles B. Keller, Robert J. Kirk, Clark M. Leiblee, Leon M. Marshall, George W. May, Earl L. Miley, Thomas C. Miller, William E. Modie, Philip Monroe, Joseph A. McCallum, James H. McCreary, Hova E. McKelvey, James O. Newton, Edward E. Neary, Charles T. Rogers, Charles W. Reelhorn, George W. Richie, Ervin E. Royer, Harry L. Ruble, Calvin L. Shafor, Leslie E. Sharp, Baron A. Smith, Frank J. Smith, Ray R. Smith, Herbert S. Srigley, Roy E. Turner, William C. Teter, Edward E. Wattring, Sylvester S. Whetstone, and George Wing.—62.

Pharmacy: Henry Deterding, Harold O. Hugins, Henry H. Mason, Clarence E. Slichter, Margaret E. Barrett, Leon C. Kennedy, William S. Bartlett, Clyde C. Hardesty, Josephine H. Enright and William F. Allen—10.

The closing feature of the Commencement was the annual banquet which was held at the Great Southern Hotel Thursday evening. Quoting a daily paper: "The banquet room of the hotel was beautifully decorated for the occasion, the yellow and black of the University colors playing a very prominent part in the scheme. There were flowers in profusion. Neat and appropriate souvenir menu and program cards were left at each plate for the guests. Plates were laid for 350, and the tables were practically all filled when the signal was given for the serving of the feast, Dr. C. A. Hawley of the dental college acting as toastmaster. The responses were: "The Passing of the Day," G. I. Goodrich, M. D.; "Our Ideals," G. H. Foster, D. D. S.; "Pharmacy—A Retrospection," W. F. Allen, G. Ph.; "O. M. U. Abroad," Gillette Hayden, D. D. S.; "The Overconfidence of Youth," W. A. Barber, D. D. S.; "Our Alumni," C. W. Hanna, M. D. There were several impromptu speeches, with words of good cheer from some of the older members."

STARLING MEDICAL COLLEGE COMMENCEMENT.

The Commencement exercises of Starling Medical College were held at the Grand Opera House, Thursday evening, April 16. A large audience of relatives and friends was present. The Trustees and Faculty of the college occupied the stage, while the graduates, in conventional caps and gowns, occupied the front seats in the orchestra.

The exercises began with an invocation by Rev. J. A. Patterson. The degrees were conferred by P. W. Huntington, President of the Board of Trustees, the students appearing upon the stage to receive their diplomas. The principal address was by Dr. E. C. Brush, of Zanesville, Surgeon General of the Ohio National Guard. Dr. Loving, Dean, delivered a brief address to the graduating class, at the conclusion of which he announced that the gold medal for the highest grade throughout the entire course had been awarded to Dr. Ernest H. Hickman. A. F. Swaney, J. L. Courtwright, O. E. Chenoweth, C. B. McGlumphy and R. R. Harris received honorable mention.

At the conclusion of the exercises the annual banquet to the alumni was served at the Neil House, P. W. Huntington acting as toastmaster. "The gathering was representative of alumni who had received their degrees years ago and by arduous practice had proved that the honors were well merited; of business men who are interested in the welfare of old Starling, either for the memory of what she has done, the expectancy of what she will do, or in the friends or relatives who had there received their diplomas. Colonel James Kilbourne, recently elected to membership on the Board of Trustees; Dr. R. Gilbert Warner, Councilman-at-Large, and others who are known in business and professional circles, were seated around the festal board."

"Those who made addresses at the banquet were Doctors Rardin, Lisle, Moore and Clark, representing the alumni, graduates and faculty. The drift of the addresses was along the lines of formulating plans for the advancement of the interests of the institution by the formation of a local Starling club under the auspices of the alumni."

The following received degrees: Gustave J. Alchner, Earl Z. Alspach, Fred D. Bird, William E. Borden, Charles F. Bowen, Lucian L. Brock, Charles R. Campbell, William B. Carpenter, James E. Chapman, Olen E. Chenoweth, J. L. Courtright, Benjamin F. Cureton, Sanford E. Edwards, William L. Evans, Joseph W. Forshey, Elmer N. Funk, Raymond Harris, Lew H. Hauman, Albert H. Herr, Ernest H. Hickman, Levi D. Hurd, Jacob A. Knight, Fred B. Larimore, Edward C. Ledman, Loren P. Lee, Charles H. Lisle, Daniel W. Lowe, Wesley M. Luburgh, Omen H. McDonald, Charles B. McGlumphy, Samuel T. Marshall, Edgar H. Moore, Everett H. Morgan, Ernest D. Murphy, John D. O'Gara, James E. Patton, Maurice S. Rarick, John A. Reed, Walter W. Rhyan, Thomas E. Rymer, John M. Sayler, Carey A. Scurlock, Ellsworth Sheldon, Amos B. Sherk, Archibald F. Swaney, Matthew A. Swaney, Joseph A. Thone, Arthur D. Traul, William E. Wright—49.

NEW ORLEANS MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The opening of the Convention of the American Medical Association, April 5, was in the form of a general session in the Tulane Theatre at 11 o'clock a. m. The theatre was crowded.

The exercises consisted of prayer by Rev. W. G. Davis and addresses of welcome by Mayor Capdevielle, by General Leon Jastremski in behalf of Governor Heard, and by Henry P. Dart, Esq.; the reading of the report of the arrangements committee by Dr. Isadore Dyer, the chairman of the committee, and the annual address of Dr. Frank Billings, of Chicago, President of the Association. There were "many ladies in the audience, and handsome gowns and fair faces made the boxes attractive alike to those on the stage and to those in the body of the house."

On the stage were Dr. Billings and Dr. Simmons, respectively President and Secretary of the A. M. A.; Dr. Dyer, chairman of the arrangements committee; Mayor Capdevielle, Hon. William Mehle, General Jastremski, Henry P. Dart, Rev. W. G. Davis, Rev. John F. Foster and the following local and visiting physicians; Dr. Garcelon, of Maine, ex-Governor of the State, ex-President of the A. M. A., one of the oldest physicians in the United States; Drs. Moore, Culbertson, Parham, Callan, Souchon, Menage, Martin, Marcy, Oechsner, Barrier, LeBeuf, Dodson, Wyeth, Graner, Chassaignac, Magruder, Chaille, Holt and Witherspoon.

Mayor Capdevielle, in concluding his address, said: "In bidding you, as I do, a truly heartfelt welcome, I represent the feeling and sentiment of all our people. They ask your aid and counsel. They hope your deliberations will be marked by entire freedom of inquiry, as well as by harmony, and they look to the results with assured confidence that these will inure to both private and public good."

Dr. J. A. Witherspoon, of Nashville, First Vice-President of the American Medical Association, responded to the addresses of welcome, speaking briefly of the achievements of the profession in the South and concluded with a graceful tribute to the ladies and the people of New Orleans, and expressed the pleasure of the Association in again enjoying the hospitality of the metropolis of the southern states.

President Frank Billings, M. S., M. D., of Chicago, took for the subject of his annual address "Medical Education in the United States," and went into the subject exhaustively. He reviewed the interest taken in the cause of medical education by the Association, and said: "The medical college associations exerted a splendid moral influence for good, and the state boards in all the more advanced states have, by mandatory legislation, compelled the colleges to raise the requirements in reference to the preliminary education, the length of the annual session, the time of medical college study, the character of the curriculum, etc. As a result, the status of medical college education has been very much improved in the last twenty, and chiefly in the last ten years. But, improved as it is, there are evils which menace us, the chief of which still are too many medical schools, too many students, and inadequate facilities for the proper teaching of medicine."

The attendance was large, there being about two thousand physicians registered. The weather was excellent. Hotel accommodations were said to be satisfactory.

No pains had been spared by the committee of arrangements to make the meeting of the Association pleasant and profitable to the members. A pleasure trip to Cuba was provided, leaving New Orleans Saturday. The proverbial southern hospitality was not wanting in providing entertainment for the members and their wives.

Two receptions at private residences constituted the chief social features. "Both of these functions were most brilliant."

"The present status of medical science requires and demands a university medical college course. To properly prepare for such a course the student should have, as a minimum preparation, at least two years of study in a good college or university. The requirements to enter a good college or university would insure a sufficient knowledge of the ordinary school branches and also Latin or Greek. During the two years' course in college his time would be well spent in the study of English, French, German, mathematics, history, philosophy, physics, chemistry, general and organic, and qualitative analysis, comparative anatomy and general biology. The amount of time to be devoted to each of these subjects would be the same as that of students of general science, as arranged in all college curricula, with the exception of a much more thorough course in chemistry, biology, physics and comparative anatomy.

"So prepared the medical matriculate would be able to grasp all the intricacies of the subjects of the fundamental branches of medicine. With the addition of the full medical college course, as outlined above, his education would be equal in culture to that of the graduate in arts and philosophy. At the same time, it would be practical and especially fit him for his work as a scientific investigator or practitioner, or for both.

"With the medical profession so educated a physician would be, in truth, a member of a learned profession. From an educational point of view he would rank as an equal with the scholar in philosophy, law and theology. As a man he would be recognized as the greatest benefactor of mankind."

Dr. Adolf Lorenz attended the sessions and operated upon two cases of talipes in the amphitheatre of Charity Hospital in the presence of members of the Association.

Portraits of two expresidents were presented to the Association for the Hall of Fame. They were those of Dr. T. G. Richardson and Dr. Hunter McGuire.

According to a New Orleans paper "There were more physicians in attendance at this convention than have ever attended any other of the Association in all the fifty-four years of its existence. The Medical News says that "few meetings of the American Medical Association have been comparable with this in its successful attainment of every end of the annual gathering from the scientific and business to the eminently admirable spirit of good fellowship that prevailed." Coming as it has at a time when the organization of the national body has just been perfected, and brought into close relationship with the state societies it will be long remembered as a landmark in the history of the Association.

MEDICAL COLLEGE ASSOCIATION.

The Association of American Medical Colleges held its meeting April 4 at New Orleans. The attendance was large. Secretary Dr. W. H. Hall, of Chicago, called the meeting to order and yielded the chair to Dr. William L. Rodman, of Philadelphia, the President of the Association. Dr. Rodman, in his annual address, said in part:

"Membership in this Association has been entirely too free in the past. What we need is not more members, but better ones. The transferring of students in the midst of the term is a practice to be discouraged in the main, for nearly always the student wishes to change schools during a term for reasons altogether selfish and discreditable to himself. The entrance requirements must be raised; no advanced standing should be given to anyone with a degree unless it is demonstrably equivalent to the freshman year in medicine; the session should be lengthened, and mid-year examinations should be encouraged and should be in writing. The Association cannot retain the respect of the profession and the several state boards of examiners unless it requires a high school diploma or its equivalent of those wishing matriculation in a medical college. I should prefer to grant advanced standing only to those.

The committee appointed last year to formulate requirements for admission to the freshman year brought in two reports: The majority report, signed by Dr. Park Richie and Dr. J. M. Dodson, made the following recommendations:

That the minimum requirement for admission to the medical course be either a diploma from a four-year high school or academy accredited by a state university; or an examination in specified branches insuring an equivalent education.

"No time credit or advanced standing shall be given to any student holding a baccalaureate degree or a degree in pharmacy, dentistry or veterinary surgery; but credit for work done may be given a student, he being then permitted to take equivalent electives, which the schools shall provide. On and after July 1, 1905, each of the four years of the medical course shall be separate and distinct from the arts and scientific department of a university or college, and no student shall be permitted to be a matriculate in another department of a university or college."

Dr. W. H. Walthen dissented from this report.

The Judicial Council reported that application for membership had been made by several colleges, but none had been admitted, some had been rejected, others had been referred for investigation. The charges preferred against Milwaukee Medical College had been investigated and sustained.

The charges related to standards of entrance and requirements for graduation. A vote of censure by the Association prevailed.

The following officers were elected: President, Dr. James R. Guthrie, University of Iowa; Secretary-Treasurer, Dr. Fred. O. Zapffe, College of Physicians and Surgeons, Chicago; Judicial Council, Dr. W. J. Means, Ohio Medical University, Chairman; Dr. J. W. Holland, Jefferson Medical College; Dr. T. H. Hawkins, University of Colorado; Dr. J. M. Dodson, Rush Medical College; Dr. T. R. Ward, University of Nebraska; Dr. J. R. Winslow, University of Maryland; Dr. J. D. Griffith of Kansas City.

MONUMENT TO DR. RUSH ASSURED.

Thirty-four years ago a movement was inaugurated at New Orleans to raise money and erect a monument to the memory of Benjamin Rush, whose efforts and untiring energy gave a decided impetus to the progress of medicine and surgery in the new Republic. The chairman of the committee having the matter in charge reported that a sufficient fund had been raised to make the erection of a monument an assured fact. It will be a bronze statue, seven feet high, with an open book in the left hand, standing on a pedestal, making the total height about twenty-five feet. On the front side of the pedestal will be his name. The cost will be about $25,000. The statue, already contracted for, will be erected in front of the Museum of Hygiene in Washington. It will be a "handsome monument to a great man."

Obituary.

Denman Rathbun Kinsell, M. D., was born in Delaware, Ohio, September 21, 1827, the oldest of a family of five children. He received his literary education in the public schools of his native city, Delaware Academy, and the Ohio Wesleyan University, being one of the first students to enter the latter institution. He read medicine under Dr. Abram Blymer of Delaware, attended Starling Medical College, and the Medical College of Ohio, and completed his medical course at the Homeopathic Hospital College of Cleveland. For a time he was associated in practice with Dr. Leach, of Delaware,.removing to Columbus in 1856, where he practiced continuously to within a month of the time of his death, which occurred April 17, 1903.

While Dr. Kinsell preferred in the main the remedies and methods of the school represented by the college in which he completed his education, he had studied regular medicine, and was well read in its literature. He claimed to be only a "doctor of medicine," making no use of a denominational title. He was, therefore, a practitioner of non-sectarian medicine. His exemplary life, devotion to his profession, skill, and genial nature won for him the esteem of all who enjoyed his acquaintance. The large number of friends he leaves in the community where he practiced for nearly fifty years "testifies to his value as a citizen and physician." October 2, 1851, he was united in marriage to Miss Katherine Blymer, who, with five children, one of whom is Dr. D. R. Kinsell, Jr., of this city, survive him. He was a thirty-second degree Mason, a Shriner and Knights Templar.

The following resolutions, passed by the Columbus Academy of Medicine, bear evidence of the high regard in which he was held by his associates in the profession:

Denman R. Kinsell, a physician of wide reputation, who practiced his profession in this city nearly a half century, died at his late home on Friday of last week.

The death of a citizen of such exemplary life and devotion to his profession is worthy the notice of this Academy, though he differed from us in many of his beliefs, and was never a member of the Academy, yet he was a physician who held to good ideals and a scientific spirit guided him in his work. As a mark of the respect in which he was held by the members of this Academy, be it

Resolved, That in the death of Dr. Kinsell the city has lost an upright and valuable citizen and the medical profession an earnest practician.

Resolved, That these resolutions be entered in the minutes of the Academy and that a copy be sent to the family.

Miscellaneous.

FRANKLIN COUNTY MEDICAL SOCIETY.

To the Legally Registered Physicians of Franklin County:

By direction of the Franklin County Medical Society, I respectfully call your attention to Section 5, of Chapter 12 in the By-Laws of the Ohio State Medical Association:

SEC. 5. Each county society shall judge of the qualification of its own members, but as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who is practicing, or who will agree to practice, non-sectarian medicine shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every such physician in the county to become a member."

All reputable and legally registered physicians of the county are urged to become members without delay. The State Society meets in Dayton, June 3, 4 and 5, and in order to have your name enrolled as a member of the same, it will be necessary to join the local society at once.

Write the undersigned for application blank which fill out and forward with three dollars; this pays one year's dues and the dues in the State Society.

The Franklin County Society meets May 12 and 26, at 8 o'clock p. m., in the Board of Trade Building.

C. W. MCGAVRAN, Secretary.

COLUMBUS ACADEMY OF MEDICINE.

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All physicians who receive this circular, and who conform to the provisions of the section quoted, are urged to apply for membership in the Academy.

Blank forms of application for membership may be obtained from the Secretary of the Academy.

Yours fraternally,
JOHN DUDLEY DUNHAM, Secretary.

Medical News Notes.

Dr. G. W. Hoglan and wife have just returned from an extended trip to the Pacific coast.

Dr. A. B. Castle, having partially recovered from a recent stroke of apoplexy, has gone to Pittsburg to live with his son.

By concerted action the Ohio Medical University and Starling Medical College have raised their annual tuition from $50 to $100, the latter to include laboratory fees.

The following doctors from Ohio have been in attendance at the N. O. Polyclinic: Dr. J. M. Mittenmyer, Peebles; Dr. J. H. Stoll, Wooster; Dr. J. I. Davis, Shawnee.

The following Columbus physicians attended the New Orleans meeting of the American Medical Association: W. J. Means, Hugh Hendrixson, Ola S. Hendrixson, F. F. Lawrence, N. R. Coleman, P. D. Shriner, C. D. Dennis, C. A. Cooperrider, Frank Warner, W. D. Hamilton and A. O. Bonnet.

Prof. J. M. Dodson, Dean of Rush Medical College, and representative of the Judicial Council of the Association of American Medical Colleges, Chicago, was in the city on the

16th, 17th and 18th of this month inspecting literary and medical colleges. He visited the Ohio State, Otterbein, Capital Universities and the two medical colleges.

CITY BOARD OF HEALTH.—Mayor Jeffrey appointed the following Board of Health, which was confirmed by unanimous vote of Council: Dr. J. W. Clemmer, five years; Dr. W. E. Edminston, four years; Dr. J. U. Barnhill, three years; George J. Schoedinger, two years; Dr. P. D. Shriner, one year.

The following additions have been made to the Faculty of Ohio Medical University: Scott Fulton, M. D., Instructor in Gastroenterology; McKendree Smith, B. S., M. D., Instructor in Dermatology and Syphilology; Ernest Scott, A. B., M. D., Instructor in Histology; E. A. Hamilton, M. D., Instructor in Proctoscopy; H. H. Snively, A. B., M. D., Assistant in Surgery; J. A. Riebel, M. D., Instructor in Genitourinary Diseases.

FACULTY CHANGES.—The Trustees of Starling Medical College have changed the title of the following lecturers to professors of the various chairs named:

Dr. Harvey W. Whitaker, Diseases of the Nose and Throat; Dr. Starling S. Wilcox, Genitourinary Diseases; Dr. William K. Rogers, Otology; Dr. John Dudley Dunham, Bacteriology; Dr. William D. Deuschle, Mental and Nervous Diseases; Dr. Charles B. Morrey, Physiology; Dr. Dickson L. Moore, Diseases of Children; Dr. Earl M. Gilliam, Associate Professor of Gynecology; and elected Dr. Isaac B. Harris, Lecturer on Physical Diagnosis.

The annual meeting of the Alumni Association of O. M. U. was held in the assembly room of the University, Thursday, with President J. F. Jones presiding. The following program was carried out: "Review of the Past," P. M. Wagner, Ph. M., M. D., '96, Canal Dover, O.; "Paper," William B. Patton, M. D., '98, Springfield, O.; "My First Four Years in Practice," J. H. Bristor, D. D. S., '99, Mansfield, O.; "The Doctor and the Pharmacist," P. M. Wright, G. Ph., '95, Columbus, O.; "Address by Retiring President," J. F. Jones, M. D., '98, Columbus, O.

The following officers were elected: W. B. Patton, M. D., Springfield, President; W. C. Heintz, M. D., Columbus, First Vice President; J. H. Brister, D. D. C., Mansfield, Second Vice-President; H. V. Cottrell, D. D. S., Columbus, Secretary and Treasurer.

STARLING ALUMNI.—The annual meting of the Alumni Association of Starling Medical College was held at 2 o'clock in the afternoon of Commencement Day.

The alumni assembled in the lecture room of the old college. The meeting was called to order by Vice-President Dr. Jerome Bland, of Bucyrus. Dr. D. A. Reynolds, of Logan, spoke on "Cremation," and Dr. J. B. Naylor on "The Future."

The report of the committee on necrology was received. Those who have died within the past year are: Dr. W. A. Biven, '61, New Hope, O.; Dr. J. W. Beach, '50, West Jefferson, O.; Dr. A. M. Beach, '91, Mineral Ridge, O.; Dr. J. M. Hall, '61, Dayton; Dr. E. Fish, '48, Greenville, Mich.; Dr. L. H. Gratinguy, '64, Cincinnati, O.; Dr. G. M. Schmeltzler, '62, Toledo, O.; Dr. W. L. Burdett, '91, Ruskin, Neb.; Dr. C. C. Dunham, '85, Fulton, O.; Dr. J. N. Wood, '94, Marysville, O.

The following officers were elected at a late hour, for the ensuing year: President Dr. J. G. Rardin, of Portsmouth, O.; Vice-President, Dr. L. E. Evans, of Alton, O.; Secretary, Dr. J. B. McComb, Columbus; Treasurer, Dr. Otto Frankenberg, Columbus; Orator, Dr. D. C. Ridenour, Peru, Ind.; Alternate, Dr. J. H. Moroney, Winchester, Ind.

Recent Medical Books.

THE CARE OF THE BABY. A Manual for Mothers and Nurses, containing Practical Directions for the Management of Infancy and Childhood in Health and Disease. By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, Philadelphia. Third edition, thoroughly revised. Handsome 12 mo. volume of 436 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $1.50 net.

Dr. Griffith's manual on the Care of the Baby is without question one of the best works on the subject we have seen. Physicians could perform no better service for their patients than to recommend this little volume to nurses and mothers and thereby disseminate the right kind of practical knowledge among a class who need it and wish for such a guide. The fact of a third edition being called for within so short a time is sufficient evidence of its popularity. The book is neatly bound, well illustrated and contains numerous receipts and notes which every careful nurse or mother should know.

There is a soundness of advice and a conciseness of expression that distinguishes this work and makes it a valuable help to anxious mothers who through various circumstances do not have a physician at a moment's call. M.

OBSTETRICS. A Text-Book for the use of Students and Practitioners. By J. Whitridge Williams, Professor of Obstetrics, Johns Hopkins University; Obstetrician-in-Chief to the Johns Hopkins Hospital; Gynecologist to the Union Protestant Infirmary, Baltimore, Md., with eight colored plates and six hundred and thirty illustrations in the text. New York and London: D. Appleton & Company, 1903.

Since it was announced two years ago that Professor Williams was writing a work on Obstetrics the profession has been waiting anxiously for its appearance, for the source of the work was presumptive evidence of its excellence even to those who did not know the author personally. The work meets the highest expectations of the friends of the author. Its data are exhaustive and exact, the cuts original and well chosen, the text admirably written. Pathology has received more attention than is usually given to it in works on this subject. From a scientific standpoint we regard it as the best work on Obstetrics in our language, and the scientific is in fact the only practical work, therefore, as an expression of the art and science of obstetrics we regard it as the best book published.

While especial attention has been devoted to normal and pathologic anatomy of the generative tract, the more practical aspects of obstetrics have been presented in such a manner as to be of the greatest service to the obstetrician at the bedside.

The illustrations representing microscopical sections have been drawn from the author's own specimens under his direct personal supervision. The drawings and diagrams admirably illustrate labor and its mechanism, and therefore have practical teaching qualities. It is a work of 845 pages and yet moderate in cost. No teacher of obstetrics or general practitioner can afford to be without this excellent text-book.

SURGICAL ANATOMY. A Treatise on Human Anatomy in its application to the Practice of Medicine and Surgery. By John B. Deaver, M. D., Surgeon-in-Chief to the German Hospital, Philadelphia. In three volumes, illustrated by 499 plates, nearly all drawn for this work from original dissections. Vol. III, Abdomen; Pelvic Cavity; Lymphatics of the Abdomen and Pelvis; Thorax; Lower Extremity. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa., 1903.

The third volume of Deaver's Surgical Anatomy, now at hand, completes this great work. The scope of the work has been extended and enlarged far beyond the earlier expectations of the author. It is without any question the most exhaustive treatise on Surgical Anatomy ever published. The sketchings and drawings from actual dissections show a vast amount of patient and intelligent labor.

Reviews of the first and second volumes brought clearly before the profession the merits of the work. It would be merely a repetition to discuss the text and scope of this volume. A notice to the profession that it is now completed is sufficient. Every surgeon and student of anatomy should have these volumes in his library.

M.

THE PRACTICAL MEDICAL SERIES OF YEAR BOOKS, comprising ten volumes on the year's progress in medicine and surgery issued monthly under the general editorial charge of Gustavus P. Head, M. D. Volume IV. Gynecology, edited by Emilius C. Dudley, A. M., M. D., and Wm. Healy, A. B., M. D. March, 1903. The Year Book Publishers, 40 Dearborn St., Chicago, Ill.

The March number of the Practical Medical Series is a careful resumé of the best practical literature of Gynecology for the year ending February 1, 1903. The value of these books have already been mentioned. They bring the physician in contact with the latest discoveries in the field of scientific medicine. There are very few physicians who have the time and the opportunity of keeping in touch through medical journals with the advances in general medicine and specialties. These Practical Medical Series are labor-saving compendiums. This volume will be found very interesting to the gynecologists. It contains a full description of Dudley's plastic method for cystocele and procidentia. M.

A TEXT-BOOK OF LEGAL MEDICINE AND TOXICOLOGY. Edited by Frederick Peterson, M. D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M. D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical College, in affiliation with the University of Chicago. Two imperial octavo volumes of about 750 pages each, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Per volume: Cloth, $5 net; Sheep or Half Morocco, $6 net.

This work presents to the medical and legal profession a comprehensive survey of forensic medicine and toxicology in moderate compass. For convenience of reference the treatise has been divided into two sections, Part I and Part 11, the latter being devoted to Toxicology and all other portions of Legal Medicine in which laboratory investigation is an essential feature. Under "Expert Evidence," not only is advice given to medical experts, but suggestions are also made to attorneys as to the best method of obtaining the desired information from the witness. TheBertillon and Greenleaf-Smart systems of identification are concisely and intelligently described, and the advantages of each stated. An interesting and important chapter is that on "The Destruction and Attempted Destruction of the Human Body by Fire and Chemicals," for on the determination of the human or animal source of the remains frequently depends the legal conduct of a given case, and the guilt or innocence of the accused. A chapter not usually found in works on Legal Medicine, though of far more than passing significance to both the medical expert and the attorney, is that on the medicolegal relations of the X-rays. The responsibility of pharmacists in the compounding of prescriptions, in the selling of poisons, in substituting drugs other than those prescribed, etc., furnishes a chapter ot the greatest interest to everyone concerned with questions of medical jurisprudence. Also included in the work is the enumeration of the laws of the various states relating to the commitment and retention of the insane. In fact, the entire work is overflowing with matters of the utmost importance, and expresses clearly, concisely, and accurately the very latest opinions on all branches of forensic medicine and toxicology. M.

PRACTICAL POINTS IN NURSING. For Nurses in Private Practice. With an Appendix containing Rules for Feeding the Sick; Recipes for Invalid Food and Beverages; Weights and Measures; Dose List; and a full Glossary of Medical Terms and Nursing Treatment. By Emily A. M. Stoney, late Superintendent of the Training School for Nurses, Carney Hospital, South Boston, Mass. Third edition, thoroughly revised. Handsome 12 mo. of 458 pages, fully illustrated, including 8 colored and half-tone plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $1.75 net.

The continued and increasing popularity of this little volume has placed the publishers under the obligation of keeping it abreast of the times, of making it reflect the latest advances in the progressive profession of nursing. The revision has been extensive, every page showing evidences of careful scrutiny. Considerable portions of the work have been either amended, modified, or amplified in accordance with the progressive spirit of medicine and its indispensable handmaid, nursing. The sections treating of certain diseases, especially the infectious diseases, as well as the treatment of the common poisonings, have been in large part recast and rewritten. By the extensive revision the usefulness of the book has been greatly extended and its trustworthiness enhanced. There is no doubt that the work in its third revised form will maintain the popularity justly won by the earlier edition. M.

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SCARLET FEVER.*

BY GEORGE MURRAY WATERS, A. M., M. D.,

Professor of Principles and Practice of Medicine, Ohio Medical University; Physician to Protestant Hospital, Columbus, Ohio.

A North American city the size of Columbus is rarely free from scarlet fever. Ordinarily a carded house, warning people that scarlet fever is within, creates little or no comment.

There were in this city in 1898, 102 cases of scarlet fever; 1899, 70; 1900, 209; 1901, 469; 1902, 257. At present, conditions are unusual and we find ourselves in the midst of an epidemic.

From January 1, 1903, to March 7th inclusive, there have been 146 cases. Nine of these occurred in January, 79 in February, and 58 in the first seven days of this month. The most unusual feature of the present outbreak is the number of adults attacked. Of the 137 cases occurring between February 1st and March 7th, 66, or nearly 50 per cent., have been adults. We have much to be thankful for in the extremely low mortality, 1.3 per cent. Two only have died: one child and one adult. The termination of the present epidemic is by no means in sight. Whether it will exceed previous outbreaks remains to be seen. At any rate it is the duty of every physician to exercise his best efforts, not only as a committee of one, but as well in co-operating with the health department to stamp it out.

The prevalence of smallpox during the winter has agitated the public mind. Now the intervention of an outbreak of scarlet fever adds anxiety concerning the welfare of our citizens.

Numerous expressions of alarm concerning scarlet fever lead me to believe that it is more generally dreaded than smallpox. Explanation of this condition of mind may rest upon the recognized fact that vaccination protects from smallpox. The individual once successfully vaccinated feels a sense of safety, and no longer lives in terror of the disease, although it may prevail. From scarlet fever there is no such known means of escape. It invades the homes of the rich and the poor, and, while children are more susceptible, adults are by no means immune.

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* Read before the Franklin County Medical Society, April 14, 1903.

It seems, all things considered, that a discussion of the disease at this time and place is *a propos*, and I believe good must result from such a conference.

Scarlet fever has been known to American physicians for more than 150 years, and has probably existed in the old world from the remotest times. Sydenham is accredited with giving to the profession the first accurate knowledge of the disease. Scarlatina has been considered an important malady, and at no time during the past century has its literature been scant.

While no modern doctor doubts that scarlet fever is an infectious disease, by which we understand one caused by bacteria, no micro-organism in connection therewith has been isolated which fully conforms to Koch's four laws. The poison, whatever it may be, is readily transferred from person to person, and therefore we say it is contagious. We then have for consideration a disease which is both infectious and contagious.

How early does the scarlatina patient give off contagion? When may he go among others with safety? How is the poison carried? These are familiar questions to which we are expected to give intelligent answers.

A scarlet fever patient conveys contagion from the beginning to the end of the illness. Danger of communicating the poison is greatest at the height of the disease, and gradually diminishes during convalescence until desquamation is complete. Desquamation is the result of a serous effusion immediately external to the rete mucosum. Cellular cohesion is disturbed and the superficial layers exfoliate in bran-like scales. It is presumed the serum carries bacteria of infection. Cases having severe cutaneous manifestations desquamate at greater length and consequently retain a longer period of infectiousness. Isolation should be enforced for at least four to six weeks, and even longer in the event of continued discharges from the ears, nose, eyes or throat. The idea that the patient is infectious only during desquamation is erroneous and should not be advanced by physicians.

The virus of scarlet fever is tenacious, second only to that of smallpox. It clings tightly to objects such as clothing, bedding, toys and books, and its portability to distant localities is well known. Under favorable conditions, the chief of which is absence of sunlight, the poison retains its virulence for months,—even two years. Numerous instances might be cited bearing out the truth of these statements. J. Lewis Smith, in a monograph on scarlet fever, relates the following: "The young librarian of the circulating library of a Sunday-school, whose pupils came largely from the tenement-houses, was occupied a considerable part of a day in covering and arranging the books. After about the usual incubative period of scarlet fever he sickened with the disease. His two sisters were immediately removed to a rural township three hundred miles away, and to an isolated house where scarlatina had never occurred. About one month after his recovery, and after his room had been disinfected by burning sulphur, and his bedclothes and linen had been thoroughly washed, and all articles suspected to hold the poison had been either disinfected or destroyed, the brother visited his sisters in the country. Three weeks subsequently to his arrival one of these sisters sickened with scarlet fever, and a week later the other also. It seems that the exposure must have occurred several days after his arrival in the country from some book or other infected article in his possession. About two months elapsed after the last case; the family had returned to the city, the infected room in the country-house had been thoroughly fumigated by burning sulphur from morning till evening, when a little girl from an inland city remained a few days in the house, and probably often entered the room where the young ladies had been sick. In a few days she also sickened with a fatal form of scarlatina."

It is not likely that scarlet fever poison is air borne any great distance; probably not more than a few feet. Yet it is directly communicable by inhalation of the breath of a patient, breathing air charged with particles of epithelium, or by dried discharges from some mucous surface.

In my opinion the most frequent means of distribution of the virus is by the clothing of persons who go out of infected houses and mingle with others in private or public places. Indeed the mysterious thing to me is that an epidemic of such a contagious disease ever ceases without rigid quarantine.

Books are especially likely to distribute scarlet fever poison. Children and adults mildly attacked, or during convalescence, handle them and they are allowed to lie upon the bed. Particles of desquamating epidermis find their way into the books, lodge between the leaves, and, although fumigated, distribute the poison to others. Great caution should be exercised at the public libraries, and books known to be returned from infected houses should be immediately destroyed.

All individuals are not equally susceptible. Age, condition, idiosyncracy, and previous attack have their influence. Few infants contract the disease. From one year the liability increases to the sixth, when the maximum is reached. Progressive diminution in susceptibility is the rule thereafter.

Any recent disease which impairs the normal resisting powers renders the individual more susceptible. One attack usually immunizes through life, though there are exceptions.

No one pretends to explain why some persons, even families, are immune to scarlet fever. It is nevertheless a fact that more than 50 per cent. do not contract the disease even though exposure has been certain. In substantiating this statement I quote from the statistics of the epidemic in Thorhavn, a Danish island, where the population had not come in contact with the contagion of scarlet fever for 57 years. In this instance a population comprising all ages, and certainly not protected by previous attack, only 38.3 per cent. contracted the disease. Ninety-nine per cent. of the same population had suffered from measles.

Since all are familiar with the salient features of the attack, the same will only be briefly considered.

The hatching period is from two to four days, one to seven being the limit.

The onset is generally abrupt. Aside from chilliness, aching and anorexia, vomiting, sore throat and headache are common symptoms. Vomiting is especially constant in the young, and when persistent foretells a severe attack.

Clinically the attack is either simple, septic or toxic.

Fortunately, for several years our local cases have, for the most part, belonged to the benign variety. In the recent outbreak there have been numerous cases which could not be so classified. In the benign form of the disease the characteristic symptoms exist in moderate severity. There is vomiting, sore throat, pains, coated tongue, anorexia and a moderate fever. On the second day the characteristic rash occurs first upon the neck and chest. By the fourth day the heighth is reached and about the fifth or sixth day all symptoms begin to subside. By the end of one week the patient is convalescent, the eruption fades, and desquamation is noticeable. The strawberry tongue which the books would have us observe about the fourth or fifth day is not always distinct. On the contrary we occasionally see cases in which there is sore throat, the strawberry tongue, mild fever, and few or no other symptoms. Is this scarlet fever? I am not competent to say. Many physicians believe it is.

Young children are usually the victims of the septic form. To an increased severity of all usual symptoms, add those which result from extensive throat involvement, and septicemia, and you will have a clinical picture of septic scarlet fever. The anginose variety is often mistaken for diphtheria, and frequently fatally complicated.

Toxic or malignant scarlatina is characterized by a severity out of all proportion to any local lesion. The poison appears to be so intense as to completely overwhelm the vital centers, before sufficient time has elapsed for the development of the usual symptoms. Death may relieve before the rash appears. In less severe cases dissolution may be delayed to the fifth or sixth day, and, in the meantime, may be observed not only the sypmtoms of scarlet fever but also those of extreme toxemia. Too much time would be occupied in an attempt to analyze the symptoms of the three forms of scarlet feve.r

Few diseases are so liable to complications. While most fatalities occur as a direct result of the acute attack, some of the complications are of importance since they tend to chronicity and permanent injury to health. I quote English statistics from Caiger's article in Allbutt's System of Medicine. Otitis occurred in 11.05 per cent.; cervical adenitis, 8.74 per cent.; articular rheumatism, 4.50 per cent.; simple albuminuria, 4.28 per cent.; acute nephritis, 3.41 per cent.; and others less frequently. In this country otitis and nephritis are the most dreaded. No attempt will be made in this paper to elaborate these complications.

Treatment: All proposed specifics have failed to become fixtures in the therapeutics of scarlet fever. The best possible surroundings should be provided for the patient, important symptoms combated from day to day, and keen attention directed towards the earliest detection of complications.

The room should be well aired and kept warm. The patient should be put to bed and kept there until convalescence is well established. Children should at once be removed from the house, or kept as far as possible from the sick apartment. Members of the family, except those actually needed to care for the patient, should not go into the rooms. Indeed, within, a rigid quarantine on a small scale should be at once installed and maintained. Members of the family should not go to the bedside and then out to mingle indiscriminately with others and become disseminators of contagion. The recent orders of the superintendent of health is the first step taken towards wiping out the epidemic. The house card amounts to nothing more than a warning to keep out. Even this warning is not always heeded.

Now as to the attack. For the headache, pains and early fever, phenacetin should be given in doses sufficiently large to relieve. Most physicians give this drug in too small doses. Dover's powder may be given for the same purpose. The patient should be given a warm cleansing bath at least once daily. No objection to using soap and water freely. Bathing lessens temperature, itching and burning of the skin, and often relieves restlessness. Ordinarily some mild febrifuge, such as actetate of ammonia combined with sweet spirits of nitre in syrup of orange, may be given. When the fever ranges very high cold sponging and even the cold baths have been used with benefit. The fever, however, is of comparatively short duration and has less significance than in more prolonged disorders. The bowels should be moved daily. Aromatic cascara is an excellent laxative for either children or adults. During convalescence, particularly after a severe or prolonged attack, a mild iron tonic is indicated on account of anemia. In the average attack, after ten days, the patient feels quite well and begs to leave the bed. There can be no valid objection to the sick leaving the bed, and sitting or playing about the room providing the most rigid care is used to prevent taking a cold. The diet of the average case may be liberal except during the height of the attack. Milk, broths, albumin lemonade, milk toast and the like. When the fever has subsided the diet may safely consist of a greater variety, including the substantials. In the severe types with toxemia supportive measures must be employed. Brandy in sugar and water is easily given to even small children. The physician should fit the dose to the demands of the individual case.

The anginose type requires special treatment of the local lesion. The throat should be sprayed or gargled every half hour or hour with any one of the common antiseptics such as borolyptol, glycothymolin, or, for that matter, a simple boracic acid solution. When there is infiltration of the cervical glands, hot applications appear to give relief, and probably hasten resolution. If suppuration is inevitable heat hastens the process. Extensively involved throats in which there is ulceration and sloughing, should be kept as clean as possible. The strong antiseptics are advantageous. I have used a 50 per cent. solution of hydrogen dioxide with satisfactory results. It may be either sprayed or gargled.

Scarlet fever complicated with otitis made my sister a deaf mute. For twenty years I have observed this complication with alarm. So important does it seem to me that whenever I encounter ear symptoms I at once call the aurist. Ear pain, swelling about the mastoid, and later discharge, in the course of a scarlatina attack indicate local trouble. Simple remedies such as irrigation with hot water, the application of a cocaine solution, or of laudanum, are generally employed. Heat applied to the ear often relieves. The matter of puncturing the drum and other special treatment is safe only when done or directed by the otologist. Every case in which the throat is involved is liable to this complication. Infection most likely travels to the ear by way of eustachian tube.

Theoretically in all cases, and practically in the severe, the urine should be examined daily. At all events daily inquiry should be made as to the amount of urine voided. In most cases there is a trace of albumin, but this is not serious. Scantiness or suppression usually first indicate the onset of acute nephritis. Puffiness about the eyes, chilliness, higher temperature, and bloody urine are confirmatory evidences which soon follow. The skin and bowels must now be relied upon for excretory functions. Warm baths and diaphoretics must be given. Hot air and steam baths have been extensively used. The bowels must be thoroughly opened and kept operating frequently. This may be accomplished best by the use of elaterium, salts or jalep.

MICROBES CALLED INVISIBLE.*

BY DR. E. ROUX—TRANSLATED BY D. N. KINSMAN, M. D.

Microbes, as the name indicates, are very small things that we cannot see without the microscope, but there are degrees in their littleness. The bacillus Butschlii of Schaudinn, 3 to 6 microns in thickness, is a colossus beside the bacillus found by Pfeiffer in the grippe, and which measures only one-half a micron. If it was one-fifth as large, the bacillus of Pfeiffer examined with the most powerful objectives would remain invisible, for with the best instruments we are unable to distinguish a corpuscle of less than one micron. It is very certain that the size of microbes is not limited to those which the microscope permits us yet to perceive. There exists a whole world of invisible beings, and for a long time they have been inclined to hold them responsible for all diseases of which the microbe is not yet known. Pasteur admitted, already in 1881, the hypothesis that the rabic virus is so small that we are not able to see it. Until 1898 these microbes were only beings of imagination. The work of the last four years has given them a reality.

APHTHOUS FEVER.

A drop of the serum extracted from an unruptured aphtha upon a heifer attacked with aphthous fever appears almost transparent. Löffler and Frosch, examining it with a microscope, found some lymph cells, red blood globules and very refractive granulations of variable size, appearing sometimes as points scarcely perceptible. The most varied means of staining cultures upon different media did not permit them to discover the microbes in this aphthous lymph, which meanwhile contains specific germs, because they transmit the disease. These microbes are smaller than the smallest bacterium known, as the following experiment proves. A portion of this aphthous serum diluted in 39 parts of water is passed through a Berkefeld filter of infusorial earth. In order to assure them of the perfection of the filter, Löffler and Frosch added bacillus fluorescens to the aphthous dilution. The latter passed through the filter perfectly limpid. Sown upon various media it gave no microbian development. The bacillus fluorescens has, therefore, been arrested by the filter, which proves it, at least, was not at fault. A cubic centimeter of this filtrate which seemed sterile, injected into the veins of a calf, gave characteristic aphthous fever. Passed successively through three filters, the filtrate remained virulent, and examination with the most powerful objectives showed no recognizable form. Meanwhile a microbe, and not a toxin, gives the filtrate its activity, for it is sufficient to pass it through the filter of Kitasoto, of which the pores are much smaller, to obtain an inactive liquid. It is admitted in bacteriology that filters made of porous earth retain all the microbes, so filtration is one of the classic methods of sterilization of liquids. This has rendered and will yet render each day the greatest services to science. Löffler and Frosch, in showing that the virus of aphthous fever passes through a Berkefeld filter, have shown us that besides the ordinary microbes arrested by the filtering walls, there are others much smaller, which break through the obstacle. Since this discovery a great number of treatises have appeared relating to these so-called invisible microbes, and we shall pass them in review.

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* Bulletin de l'institute Pasteur.

BOVINE PLEURO-PNEUMONIA.

While Löffler and Frosch were studying aphthous fever they made, at the Institute of Pasteur, researches upon the pleuro-pneumonia of cattle. This disease is characterized by thickening of the inner-lobular partitions of the lungs, infiltrated with serum. The latter, inoculated in a small dose beneath the skin of a calf, determines after eight or twelve days, a swelling which goes on increasing until the death of the animal. In the serum which distends the subcutaneous cellular tissue we see no distinct microbe, and cultures made upon different media employed in laboratories remain apparently sterile. Meanwhile in this very virulent serum the evidence of a special microbe is produced by means of cultures in a collodion sac in the interior of a living organism. A small collodion sac full of nutritive bouillon is sown with a trace of pleuro-pneumonic lymph.

Another similar sac receives a drop of the same lymph sterilized by heating to 55° C. Both sacs are introduced into the peritoneum of a rabbit and withdrawn after fifteen days. Their content is drawn into pipets. The one sown with the active virus presents a light cloudiness, so feeble that it would not be seen if the liquid of the second sac was not used for comparison. The examination of the opalesent liquid shows very fine and mobile granulations which after coloring with thionine appear with the most powerful amplifications slightly elongated. They are so small that it is difficult to pronounce upon their form. Do they represent a microbe which will be developed in a medium modified by its sojourn in the organism of a rabbit? In order to learn this there is nothing to do but make successive cultures in sacs. A small quantity of the fourth culture was inoculated under the skin of a heifer, which, after the habitual incubation, took the typical disease. It is, therefore, certain that the microbe of pleuro-pneumonia had been cultivated in these sacs, and it is at the limit of visibility.

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That pleuro-pneumonic serum passed through the Berkefeld filter or the F. (Chamberland) gives no culture, nor does it produce the disease in calves. The culture in bouillon serum filtered in the same way is sterile and inoffensive. It seems, therefore, that the microbe of pleuro-pneumonia does not pass through filters. Meanwhile, the passage takes place if one operates with serum diluted twenty or thirty times in its volume of water. Under these conditions the filtrate cultivated in bouillon serum shows itself very virulent. This capacity of the microbe to pass filters permits us to obtain a pure culture with an impure serum, as that which is drawn from the lungs of cattle slaughtered on account of pleuro-pneumonia. It suffices to mix with ordinary bouillon and to collect the filtrate in a sterile vase containing the necessary quantity of serum. The common bacteria are retained by the filter, which only allows this specific microbe to pass. The Chamberland filter marked B. cannot be employed in these cases, for it arrests even the microbe of pleuro-pneumonia. 1898 is the year which has seen appear the most of the invisible microbes. After those of aphthous fever and pleuro-pneumonia, a new one is mentioned by Sanarelli as the cause of a singular disease observed at Montevideo among the rabbits of the Hygienic Institute. The affection began by a catarrhal conjunctivitis of both eyes. After 48 hours the lids were swollen and closed and a purulent effusion escaped. At the same time the face became swollen and deformed, the orifice of the anus, and the genital organs are the seat of an acute inflammation; the testicles hypertrophied, and there is formed upon the skin here and there, but especially upon the ears and extremities, neoplasms. Death followed on the fifth day. The secretion of the conjunctiva, odema of the eyelids, the skin, the blood, the pulp of the organs are virulent. A trace of these products injected beneath the skin or in the veins or placed upon the conjunctiva, or swallowed, gives the disease. The tumors are formed by myxomatous tissue with stellate elements, and dilated capillaries. In no part were they able to find a microbe, either by microscopic observation or by culture. Sanarelli calls the virus limited myxomatous virus because of the lesions that it determines, and he concludes that the microbe which constitutes it is too small to be seen. He does not tell whether the virus passes through a filter.

MOSAIC OF TOBACCO.

The same year, 1898, M. Beijerinck published a memoir upon a *contagium vivum fluidum,* the cause of a disease of tobacco called mosaic. The young leaves of the sick plants showed places where the chlorophyl was discolored. These spaces are disseminated and at their location the tissue is necrosed. The spot passes to a brown color and produces an opening when the leaves are gathered. Ad. Mayer proved in 1887 that the disease is contagious, and that with the juice of the sick leaves we may infect sound leaves. Beijerinck sought for the parasite of this affection without seeing anything that resembled a microbe. The juice passed through a porcelain filter produced the disease just as before the filtration. Heated to 70° C., preserved for ten months, it remained virulent. Moreover, according to Ivanowski, the sick leaves preserved many months in alcohol at 95° are yet capable of communicating the disease. This limpid juice sown upon various media produced no culture. 'The virus, therefore, behaves as that of which we have just spoken, and it seems that the conclusion to be drawn from the experiments of Beijerinck is that the mosaic is caused by a microbe, very small, invisible to the microscope, and passing through filters. Beijerinck supposes that in this case the contagion has no definite form, but is a *contagium vivum fluidum* which traverses the filter as a soluble substance. The following experiment appears to the author to justify his idea. The sick tissues are triturated and placed upon the surface layer of agar. After some days the surface of the agar is sterilized by a strong solution of sublimate and the superficial layer is removed. The deep layer laid bare contains the virus, since it transmits the disease to plants. The virus is therefore diffused in the mass of the agar in the manner of a soluble substance.

The conception of the *contagium vivum fluidum* is very original, but before admitting it can we not suppose that a very fine microbe furnished with spores has penetrated into the depth of the agar, or, again, that the deep layer has been soiled at the time when the superficial layer has been removed? It would have been interesting to filter the virus upon the Chamberlain filter B, or upon a filter with smaller pores, in order to see if it continued to behave as a substance in solution.

HORSE SICKNESS.

Most of the horses recently imported into certain districts of Southern Africa die of an affection called the horse sickness. It rages during the summer, and attacks those horses which pass the night outside. Those which are protected in a close stable remain well. This peculiarity has suggested that the horse sickness is inoculated by some nocturnal insect enjoying a role analagous to that of the anopheles in paludism. The first symptom is an elevation of temperature, with remission at night. Then follow anxiety, respiratory trouble, and a frothy red discharge. The animal dies very rapidly after the appearance of the respiratory troubles. There sometimes develops an odematous swelling of the head and neck. At the autopsy the cellular tissue of the lungs is gorged with serum, the connective tissue of the head is distended by liquid of the same nature. The disease is inoculable, but it is not transmitted by simple contact of the sick animal with a sound one. The blood, the serum containing the virus, give no culture, nor is there to be seen any microbian form. The blood preserved by M. Nocard in a closed tube was virulent two years and four months after it had been collected. Nocard has found that the serum diluted with 33 times its volume of Seine water and filtered upon a Berkefeld filter does not cultivate and was virulent, while it was inoffensive after its passage through the Chamberland filter marked F. MacFadyean has filtered the undiluted serum and the blood mingled with serum through the Berkefeld filter and even through the Chamberland filter F., and has collected an active filtrate. According to the same author the Chamberland filter marked B. does not allow the virus to pass as when the serum has been diluted with 30 times its voulme of water. So MacFadyean thinks that the microbe of horse sickness is much smaller than those of pleuro-pneumonia and of aphthous fever, which are retained by the Chamberland filter B.

The regular monthly meeting of the Licking County Medical Society was held May 5, 1903, in the convention room of the court-house, there being twenty-five physicians of Newark and the county in attendance.

Dr. J. P. H. Stedem read a very interesting paper on "Drug Adulteration" and was requested by the society to prepare another paper on the same subject for the next meeting.

Dr. E. J. Barnes of Granville presented an excellent paper on "One Method of Prophylaxis of Tuberculosis." Both papers were the subject of considerable discussion.

The suggestion of a regulation fee bill for physicians of Newark was discussed and Drs. Hatch and Stedem were appointed as a committee to meet with Drs. Mitchell and Palmer, who will be asked to represent the Homeopaths, to adjust the fee matter. Drs. C. A. Hatch, W. H. Knauss and Barker will read papers at the meeting on June 2.

PLEURISY: CAUSES AND SYMPTOMOLOGY.*

BY R. A. KIDD, M. D., SHEPPARDS, OHIO.

Primary Causes: 1. Simple chilling on exposure to cold. 2. Traumatism.

Secondary Causes: 1. Direct invasion of plema by an inflammitory process originating in some neighboring organ. Thus arises the pleurisy in crupous pneumonia, in lobula catarrhal pneumonia, in pulmonary gangrene, in hemorrhagic infection, in embolic abscess and in typhoid fever. 2. Tuberculosis. By far the most important secondary symptom is tuberculosis pleurisy. Not infrequently the pleurisy seems to start from a tubercular bronchial gland breaking into the pleural cavity and infecting the latter with tuberculous virus. The teaching of almost daily clinical experience is that the ordinary chronic pulmonary tuberculosis is almost constantly complicated with pleurisy. Other organs besides the lungs may be the point of origin for a pleurisy. Pleurisy may arise from affection of the ribs or vertebra, such as cancer, from perforation of an œsophageal cancer, etc.

3. Extension of inflammation by contiguity. Inflammation of the contiguous serous membranes are especially apt to invade the plema, thus it may arise as a result of pericarditis or peritonitis, since the plema and pperitoneal cavities are in direct communication with each other by lymphatics of the diaphragm we can conceive that both a pumlent and tubercular peritonitis may result in a secondary pleurisy. 4. Rheumatism in acute articular rheumatism is due to the specific cause of the disease. 5. Genuine gout.

6. Chronic Nephritis. The precise origin is as yet unknown, but is perhaps the abnormal accumulation of the products of tissue metamorphosis in the blood and the tissues.

Symptomology: The symptoms of pleurisy vary widely in severity in different cases. They are sometimes so marked as directly to suggest to the least experienced observer the nature of the case with which he has to deal; they are sometimes almost, if not quite, absent. The initial symptom of pleurisy is usually pain—at first in the side. This is often very violent, and of a sharp, tearing, cutting or stabbing character. This is intensified by every deep breath or upon physical exertion, also upon movements of the body, in stooping, coughing, sneezing, laughing or gaping; pressure on the chest wall on the afflicted side is often very painful. As to the immediate cause of this pain some have thought that it might depend upon an extension of inflammation from the parietal pleura, so as to involve the neurilemma of the adjacent intercostal nerves. Others have attributed it to the friction of the opposed serous surfaces upon one another. In this way it is accounted for its usual appearance about the nipple or between the fifth and eighth ribs, since there is so much more movement of the visceral upon the costal pleura there than higher up.

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* Read before the Franklin County Medical Society, Sept. 23, 1902.

In some cases pain is altogether absent and a large quantity of effusion may then accumulate in the pleural cavity without its presence being thought of. This is especially apt to occur in children, in very old people and the insane.

Dyspnea is the most striking symptom of pleurisy. This is usually more marked in robust, plethoric patients than in those who are anemic and wasted. Breathing is short, jerking in character, which is increased upon the least exertion. Sometimes the scaleni and the other muscles of forced inspiration are brought into action, and the nostrils dilate each time air is drawn into the chest.

Cough is frequent and dry, sometimes it can be excited by percussion or pressure over the painful intercostal spaces, or by changes of posture. Expectoration is entirely absent in uncomplicated pleurisies, or is scanty and consists simply of mucous.

FEVER in pleurisy is generally moderate; temperature commonly ranges at about 101 degrees or 102 degrees; with effusion or complications it may reach 104 degrees or higher. In persons suffering from cancer, or from chronic affections of the kidneys, there may be no pyrexia at all.

Pulse is accelerated in proportion to the intensity of the local inflammation and of the consequent disturbance of the system generally. One author insists upon the importance of watching the character of the pulse with care, for, he says, as effusion goes on, although the temperature may fall, the pulse not only becomes more rapid, but its volume and tension diminish in consequence of the obstruction to the flow of blood through the pulmonary vessels. This affords a valuable indication of the degree of danger to the patient's life, and during paracentesis the physician may be able to feel the pulse become fuller, and at the same time slower, under his finger.

Odema of the subcutaneous tissue of the affected side of the chest has long been mentioned as a sign of empyema. Frantzel and Peter have each found, in certain cases of pleurisy, that the temperature of the skin was persistently higher by about a degree, Fahr., on the diseased than upon the healthy side of the chest. In almost every instance the effusion was purulent.

Anti-Tuberculosis Society will meet in Cleveland on June 16. The following are on the program for this meeting:

Dr. C. O. Probst, "The Home Treatment of Tuberculosis"; Dr. J. H. Lowman, Cleveland, "The Sanatorium Treatment of Tuberculosis."

Charles S. Howe, acting President Case School of Applied Science, "What Applied Science Has Done for Sanitation"; Judge E. L. Blandin, Cleveland, "Relation of Government to Hygienic Conditions"; address, Dr. Walter Wyman, Surgeon-General of Public Health and Marine Hospital Service, Washington, D. C.; Dr. S. S. Knabenshue, Toledo, President.

A PROTEST AGAINST HOME STUDY FOR SCHOOL CHILDREN.—(N. Y. Medical Journal).—The committee on education and home study, of the Parents' Association, met recently in Philadelphia, and decided to bring before the board of education a petition signed by 2,000 clergymen, physicians, and parents, protesting against overwork and home study in the case of young and growing children.

FRAMBESIA, MORULA SMALLPOX, CUBAN ITCH.

(YAWS, PARANGI, ENDEMIC VERRUGAS.)

BY GEORGE W. MANGUS, RED CREEK, NEW YORK.

Yaws.—Yaws signifies raspberry, and is applied to an epidemic tropical disease frambesia, commonly known by the former name in Africa.

It is a genus of disease arranged by Cullen in the class cachexia, and order impetigines. It is somewhat similar in its nature to the lues venera, and is endemial to the Antilles Islands, as well as Africa, India, Ceylon, Java and Samoa. It appears with excrescences like mulberry growing out of the skin in various parts of the body, which discharge an ichorous fluid. Dr. Hibbert applies the terms Great Gore, Pox, or Morbus Gallicus, of the fifteenth century.

Dr. Patrick Manson, of England, says that Frambesia is a contagious inoculable disease characterized by an indefinite incubation period. After treating this disease for a period of one year I am convinced that it is not smallpox, so much treated of late throughout my native state. I have treated over fifty cases since last April. Every member in my family has had a fair trial with what I term frambesia, or the present epidemic, smallpox.

Symptoms.—General malaise for several days, followed by cancre sore mouth and tongue, eyes injected and very red. Eruption makes its appearance on forehead or over the temporal region, in a few days spreading over the body in the form of papules and feel hard, resemble shot under the skin.

At this stage of the disease the skin is most irritable. My wife and children made frequent applications of the finger nails to the skin; by doing so the itching and burning of the skin is very much intensified. By the frequent application of the finger nails, the papules were not allowed to form vesicles. After the papules were broken they would run a typical course of a small ulcer.

The papules as a rule were the size of a small birdshot, and when broken by the finger nails in their early formation would discharge matter looking much like ichorous pus. When allowed to run the natural course they would form a vesicle and discharge a cherry-looking matter, the surrounding structures breaking down and forming small ulcers.

I have gone through a typical course of what I believe to be frambesia. I have been successfully vaccinated; my wife, also. We were troubled more with the itching and the eruption than the children were, who were not vaccinated.

Small boils as a rule follow this disease about the ninth to tenth week. So far no deaths have followed the disease.

DOCTORS BANQUET.—At a meeting of the Hempstead Academy of Medicine held at the academy, May 11, the following officers were elected: President, Dr. Allard; Vice-President, Dr. Fitch; Secretary, Dr. Rarden; Treasurer, S. S. Halderman.

In the evening Dr. W. W. Smith, the retiring President, banqueted the members at Seel's parlors. There were eighteen members present. Dr. Smith in introducing Dr. D. A. Berndt as toastmaster, in a few well chosen words thanked the members for the many courtesies extended to him during his term of office.

Dr. Berndt then called upon every member present. Each responded and had a few pleasant words to say. There was no set program. The table was tastefully embellished with flowers and four courses were served to the hungry disciples of Esculapius. A vote of thanks was extended to Dr. Smith for the splendid spread.

M. S. PIXLEY, Secretary.

It is announced that the Philadelphia Medical Journal will be consolidated, after issue of June 13th, with the New York Medical Journal under the present able editorial management of that paper. Although the publication office will be in New York City, a business and editorial office will be maintained in Philadelphia and the consolidated Journal will continue an editorial and business connection with Philadelphia.

THE INADEQUATE TEACHING OF HYGIENE IN THE PUBLIC SCHOOLS.*

BY FRANK WARNER, M. D.,

Member Ohio State Board of Health, Columbus, Ohio.

As the preservation of the life and health of school children is of the utmost importance, it seems to me that the incorporation into the curriculum of studies having this for their aim, would be a fitting and commendable thing to do.

Barring those who have not yet reached the school age, these pupils have the longest time before them in which to realize the benefits accruing from such a course. So let it begin while their whole life is before them.

Whether hygiene should be taught as a separate, distinct study, which would mean the adding of another study to courses, which educators tell me, are already greatly overcrowded, or the modification of the school physiologies so as to incorporate in a distinct sense hygiene, is unimportant, I believe, to those who feel a great good would be accomplished by the study of sanitary science in our schools.

I know it is asking much of our school authorities to add hygiene as a separate study, or even to modify physiology so as to cover the field, when there are so many other specialized branches knocking at the door for admission, or, if in, struggling for retention in the school curriculum.

Manual training adherents think they should get in. Agriculture knocks at the door. Domestic science has her cook stove and utensils loaded on the wagon and stands in front of the school awaiting an invitation to enter.

Music comes propelled by her seductive wings, chanting sweet melodies. She is now invited in, now ordered out. The adherents of drawing are either in or think they should be in the school room everywhere.

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* Paper read before a conference of the Ohio State Board of Health and Superintendents of Public Schools of the State, at Columbus, Ohio, April 18, 1902.

Some want sewing taught in the schools, in the domestic science course.

With all these specialized studies either in or seeking admission, added to the thoroughly accepted branches which are now taught in all our schools, makes it a problem, of course, where to find the place or the inclination to add anything else on to an already greatly overburdened curriculum.

But the importance of teaching the pupil something of erecting and maintaining a healthy, strong structure in which to preserve the knowledge of whatever branches are taught or may be in the future in the schools, seems to me self-evident.

I am aware certain branches of hygiene are taught in the public schools of Ohio to-day. But I am equally aware of the fact that whatever is taught in that way is the fruit of the labors of the temperance organizations.

Through their efforts, physiology was introduced into the schools. Naturally, they have made the physiology that has been added to the school curriculum almost entirely subservient to one branch of hygiene, the ill effects of the excessive use of alcohol upon the human system. Indeed I think they go to little trouble to differentiate the difference between the effects of a very moderate use of alcoholic beverages upon the general system and the results of the excessive use. And whether that excessive use is constant or periodical. Whether the time between these periods is long or short.

The constant and excessive use of alcohol is bad enough on every organ of the body. So, no fault can be found with anyone for having incorporated a study in the schools, that which will enlighten children upon this topic.

But, the effects of alcohol, or rather the excessive use of the agent, upon the human system, is but a single one of the many broken laws of health. Others there are, and they should be taught in our schools.

By modifying and perhaps enlarging in a measure our school physiologies, I believe we would get on very well without adding a new study.

In the first place, any attempt to teach anatomy along with the physiology could well be dispensed with.

Then the effects of the evil influence of alcohol or the excessive use could and should be discussed under one heading instead of constantly recurring to it. The same could be said of tobacco and its effects upon the human system.

Then they would leave some room in which to enlarge upon some other physiological problems as well as hygienic matter.

To teach physiology and hygiene as it should be taught, it would be preferable to begin with the teacher. There should be a preliminary course or courses arranged in some way and somewhere that would meet these demands. I do not suppose it would hardly be practical, at the present moment, to arrange to teach all teachers hygiene. But such a branch would and should be established in all our normal schools. Hygiene should be taught in all our colleges and to all of the students. As many of these college graduates subsequently become teachers, they would not only be prepared to teach their own pupils hygiene, but these teachers together with those who will have had their hygiene training in normal schools, could arrange to instruct, by a series of lectures, their fellow teachers. Then all teachers would be ready to begin their work in teaching more fully hygiene in our public schools.

I shall not attempt to say just how much hygiene should be taught in our schools or just what subjects of sanitary science should be included, nor at what age the pupil should begin or how much time he should devote to the study. But I shall attempt to indicate some of the hygienic problems that might with lasting profit be taught.

We might begin with teaching them the sanitary care of

THE HOME.

Perhaps there is no place so well adapted to learn how to care for the home as at home. But so many children come from homes where so little thought is given to the sanitary side that some other place should be found where the information can be imparted. This lack of knowledge of properly caring for the sanitary conditions and surroundings of a home, is not limited to the poorer homes by any means, but is in existence in many of our best houses, not to say best homes. For many of our modest houses are homes the equal from every sanitary standpoint of any in the land.

But a vast amount of information in reference to best sanitary conditions to maintain at a home could profitably be imparted to children through the schools.

They should be taught and I believe they would carry this into practice, that not alone should the parlor and living room be clean and presentable, but that there is every reason from a sanitary standpoint to have the cellar, kitchen and pantry in as scrupulously clean condition as the parlor. Even more so, because there is so little about the parlor, though neglected to a degree, permitting the accumulation of dust in generous quantities, that contributes to unsanitary conditions. But neglect in the cellar may mean the accumulation of mold, and a damp moldy cellar is not a safe one over which to live. Vegetables may be allowed to remain in the cellar after some of them are in a decaying condition. Less likely to be left in the pantry or kitchen. But in any place about the house they are a menace to the health of the occupants of that home. This fact should be zealously guarded and the home kept free at all times from decaying vegetable matter. This would be one of the simple and practical problems to teach pupils; a lesson that they could and would take home with advantage to themselves and their parents and to the future homes which they will establish.

Dampness in cellars should not be permitted. It can be prevented, perhaps at some expense, it is true. If one owns the house in which he lives, he should be willing to expend a sum sufficient to overcome this dampness. If he does not, and a landlord sees no harm in a damp cellar, perhaps our Boards of Health will come to the tenant's aid and see that every cellar is made fit for its superstructure, the house, and that the house is made suitable for a sanitary home.

FRESH AIR.

No one ever denies the importance of an abundance of pure, fresh air. But after a roomful of fresh air is once secured, so many homes seem to forget that any special provision should be made for its renewal. This renewal is of importance not alone in the rooms where its inhabitants are drinking up the contained oxygen, but is of great importance, too, in other parts of the house and the cellar to have a ventilation established that will insure renewed air. This prevents the air becoming vitiated from any cause. If there be, and there is frequently, about the best regulated homes, slightly escaping sewer gases, fumes of combustion, containing deadly gases, escaping about the house from any one of many undetected causes, this frequent interchange of air will prevent a concentrated condition of these gases and a minimum damage to the home's occupants will have resulted.

Again, this ventilation prevents a concentrated condition of disease producing germs which may chance to disseminate themselves in the room or rooms of the house. Especially is this true during the course of any contagious disease which may be in existence in the house. By ventilating well the room, a concentration of the poison or contagious element, is prevented. How much less likely are other members of the family who may be quarantined for the time in adjoining rooms, to take the disease.

It is true, there is a great public prejudice to overcome before you can hope to get a proper amount of ventilation in the sick room, owing to the belief that one takes cold so readily. In fever the reverse is true.

TEMPERATURE OF ROOM.

There is a notion among many people that if the temperature is around 70 degrees that that is synonymous with ventilation. This idea is not confined by any means to the ignorant class, but obtains among people who would really know better if they stopped to reason the question out.

The temperature to be maintainied in a room is of much less importance than the amount of fresh air that it contains, though personally I believe in keeping a room at a temperature that I feel comfortable in, rather than measuring it in degrees.

Again, it makes a considerable difference whether one is sitting, standing, walking about, or working, or to what one would call a comfortable temperature. What would be called a proper temperature in a work shop would be entirely insufficient in the school room. There is a disadvantage in one remaining in a greatly overheated room any length of time. It makes one tender, like a hot house plant. One takes cold readilly after leaving such room.

CLOTHING.

It would be well to teach something of clothing. Its uses and abuses. To clothe oneself to look pretty is one thing. To properly clothe oneself from a sanitary standpoint, is quite another. The fair sex will always seek the necessary information on the former subject; we should impart the latter when they are school pupils.

I believe if it were once made clear to women that many a beautiful complexion is made muddy and lifeless by interference with the circulation of blood in the liver by lacing of corsets, that many a string would be loosened. While that would go a long way toward preserving her complexion, it would do more. The abdominal and pelvic organs would be allowed to remain in their natural positions and in this way contribute in no small degree to the health of the individual.

Somthing might properly be taught of the most suitable clothing to wear in the different seasons and the principles governing proper wearing apparel. This should include a close study of the dressing of the feet. Especially is this of importance in damp, cold weather. Thin shoe soles are a menace to the health of the individual who stands upon the cold ground; more especially when that ground chances to be damp. This is a very fruitful source of nasal and throat catarrh, and pupils should understand it.

To much or too little clothing does harm much in the same way. The former by inducing perspiration which, in evaporating, chills the surface, and leads to the taking of cold. Too little clothing, in chilly or cold weather, permits the surface of the body to become chilled, the blood is driven into the interior, colds frequently result; or, occasionally, worse. Pneumonia, rheumatism in those subject to the disease, or very many of the acute inflammatory diseases may ensue.

EXERCISE.

Much that I have been familiar with in the way of exercise in the public schools, has been directed alone toward the development of the child. Anything that has for its aim the strengthening of the physical make-up of the individual pupil is commendable. But it seems to me something more should be taught along these lines. That exercise—judicious exercise—is a thing more needed by the adult than by the pupil. A young scholar will find exercise of one kind or another in his play that will prove sufficient to meet all ordinary needs of his welfare. It is true, by especially planned and systematic gymnastic exercises, he will become more fully developed. But after he has once completed this task, so many times, he drops all forms of exercise and depends solely upon the increased physical strength which his gymnastic work has given him, to carry him through life.

Exercise is not a thing that is to be thought of as something to be carried out periodically over a limited period. But it should be thought of as something that is of daily need through life. That is some form of exercise. How little the importance of this proposition is understood by some persons. How little it is practiced by others.

Exercise improves the circulation of the blood, and this in turn gives a better nutrition to the structure through which the blood courses. A larger number of impurities are picked up and eliminated from the system. The appetite is improved and the food is better digested.

DIET.

The diet is of the greatest importance to the individual. Not alone the article of diet, but, also, the periods between meals and the amount of the injection of food. Probably no organ of the body is abused to a greater extent than the stomach. By many persons it is gorged with all kinds of indigestible substance at irregular hours. Then if this be a person who does not follow up these meals with any sort of exercise, the result is a great strain upon the blood vessels to care for this excessive work put upon them. It seems to me much information of a practical character could be imparted along this line that would be of lasting benefit to the individual.

SUNSHINE IN THE HOME.

Whether taken in the figurative or literal sense, sunshine in the home is of the greatest benefit.. Germs or disease find an inhospitable welcome in any room where sunlight enters freely. Darkness, dampness and poor ventilation, such as exist in many cellars and indeed some houses, are favorable conditions under which to develop disease germs.

HOUSE CLEANING.

The greatest importance attaches to placing a house in a thoroughly sanitary condition by house cleaning. I believe that most house wives understand this problem thoroughly. Still I think some very useful hints might be incorporated in our hygienic instruction to pupils. Frequently, I see the papering of a house going on where, without any previous clensing of the walls, the paper is being put on over the old dusty, soiled paper, which formerly decorated the walls. If the old paper is not first removed it should at least receive a washing with some disinfectant solution, or the paper brushed off and the room disinfected.

When walls have been painted, before repainting them, they should be thoroughlyl washed with hot water and soap. Germs that may have accumulated here along with the dust and dirt, may survive the destructive action of the paint, especially where oil alone is used with the lead, but where turpentine is used in the paint, they are likely to be destroyed.

DISINFECTANTS.

The pupil should be instructed in the principles involved in the disinfection of premises. The different methods used and a number of the best disinfectants described. There are many cases on record in which a patient has died in a house of tuberculosis. Later, another has contracted it in the same house. Other generations have developed this disease in the same home. Now, why is this? It was formerly answered that the disease attacked these patients by reason of heredity. Physicians have now concluded, seemingly with good reason, that the disease resulted because of having become infected with the tubercular germs which lurked about the house, every crevice of which had come to harbor these unwelcome guests. A thorough disinfection of that house after the first case, might have given a subsequent record far different from what it was.

Every house should be thoroughly disinfected after a prolonged exposure to tuberculosis. The house should be subjected to the same treatment after it has harbored a case of scarlet fever, diphtheria or small-pox.

These latter questions are usually left to health departments, but if the importance of these matters were taught in our schools, a public sentiment would be formed that would insure the work being done in a thoroughly careful manner. As it is now, all of this work is not done with the care it should be. Indeed the larger number of families seem to be anxious to have a minimum amount of disinfection done.

DRAINAGE OF THE YARD.

One of the first essentials of the proper sanitary care of the surroundings of a house, is good drainage of the yard. Without this, the likelihood of damp walls and a moldy cellar are greatly increased. Besides with improper drainage the rains do not carry the impurities away from the yard as they would otherwise do. The yard is left wet or very moist in places, and the condition most favorable for the development of disease germs are now in existence. The pupil should be taught this. If he is powerless to correct this special yard, he will at least have learned one of the necessary conditions for a sanitary yard.

GARBRGE DISPOSAL.

Intimately associated with the condition of the yard is the question of garbage disposal. I fear that in many localities there is hardly sufficient attention paid to this question.

In well regulated homes, there is no need of advice upon this subject. But with some people I fear the practice obtains of having no systematic, well regulated method of the disposal of the wastes of the kitchen.

BATHING.

Perhaps something could well be said to the pupil upon the necessity of frequent bathing. Again this is a topic taught already in most homes, but it would perhaps be of value to a minor class. Yet there is something to teach all pupils upon the subject of the proper manner of bathing. For instance, does anyone suppose for a minute if he were to stop and think, that he has done himself any good by having taken a bath at an excessively high temperature and then at once going out into the cold air, perhaps to drive or to stand about, or even to sit in a room insufficiently heated. One may, and often does acquire a cold in this way that is got rid of only after vigorous efforts; if, indeed, it may not be the ground work laid for something more serious and more lasting.

SLEEP.

A proper amount of sleep regularly secured is of the greatest importance in maintaining a healthy condition of both mind and body. No one can persistently break over this rule without damage resulting. If not too long persisted in, the loss of sleep may not prove more serious than to bring on a depreciated condition of the system, more especially of the nervous system. But the continued loss of sleep will mean a nervous prostration. With this, too, a brain prostration that will require a long time from which to recuperate.

VACCINATION.

The history of vaccination and of small-pox should be taught to the end that vaccination would be more sought for rather than that it should be desired to avoid it. Vaccination has been and is proving one of the great boons to mankind.

WATER SUPPLY.

The importance of protecting the source of water supply to a family or to a community, cannot be overestimated. The neglect of taking proper precaution to get and maintain a pure water supply costs a large number of lives yearly. Often, these lives are very valuable ones, too. Whether the source be a well for the supply of water to a single family, or a river or well for the supply of a community, everyone should make it his duty to do what he can to secure or help to secure and maintain, a pure supply of water. If this were done, typhoid fever would become a scarce disease, as it is in this way chiefly that this disease is passed on from patient to patient.

PERSONAL AND GENERAL HYGIENE.

In former days much that could be regarded as personal hygiene must now be regarded as general hygiene. A great change has been brought about by the massing of large bodies of people into common centers. One person can no longer control sanitary problems individually that affect him personally, except by a conjoined and united effort. Where one secured his water supply from a well in his yard, and other residences were far removed, he had, and those who are so situated now have the power to control the surroundings. But where the masses are concentrated, there must be a concentrated effort to protect one another. If for no higher motive than that he himself may receive some protection.

For the general good, he should be taught to be more considerate than to pollute the streams of the state by emptying great quantities of sewage into them, leaving the inhabitants below these outlets to look after themselves the best they can.

Sufficient points of personal hygiene should be included in this course in the public schools as would enable a person to better care for his own health.

In public hygiene, as much should be taught as would enable one as a public spirited citizen to aid his fellow man to place his community in such perfect sanitary condition that the pleasure and safety of residing in that locality will be greatly increased.

The Harrison County Medical Society met at Cadiz, Ohio, Tuesday, April 28, 1903. The following program was carried out: Address by the President, Dr. J. D. West, Hopedale, O.; "Electricity from a Therapeutic Standpoint," J. W. Gordon, Bowerston, O.; "Smallpox," R. P. Rusk, Cadiz, O.; "Hospital Experience," W. R. Allison, Hopedale, O. J. D. West, President, Hopedale, O.; J. A. McGrew, Secretary, New Athens, O.

A NEW DISEASE.—At the Congress of American Physicians and Surgeons just held at Washington, Dr. Osler described a symptom-complex, a distinct pathological entity, which is entitled to the name of a new disease, and for which a contemporary has proposed the name Osler's disease. The chief characteristic of the disease is a chronic cyanosis going hand in hand with a large increase in the number of red cells. The polycythemia must be very marked—from 9,000,000 to 12,000,000 per cubic millimeter—and the cyanosis must not be due to any of the ordinary causes, such as emphysema, cardiac and renal disease, etc. The hemoglobin percentage is also increased. All of Osler's cases suffered from chronic constipation and presented an enlarged spleen."

I. MERCURIAL POISONING; CASE.

SERVICE OF W. J. MEANS, M. D., PROTESTANT HOSPITAL.

Reported by W. E. Allaman, M. D.

Mrs. B., German, aged 26 years, unknown history, was brought to the Protestant Hosuital April 10th, 1903, from a hotel, having landed here the night before from a neighboring city. Temperature 99, pulse 86, eyes normal, heart and lungs appeared normal; skin eruption over greater part of body, papular in character, discrete and perhaps a day or two old; some of the papules bore a brownish scab, newer ones seemed to contain a small amount of fluid, still more recent ones rather hard and redened; there were but two papules upon the face, none on the hands or feet. There was marked purpura and excoriations from scratching. Marked stomatitis as produced by mercury, very offensive breath, frequent retching and vomiting; vomitus yellowish brown, sometimes greenish in color; anorexia, pain in stomach and abdomen, tender upon palpation, diarrhea, stools contained particles of mucuous membrane in shreads of yellowish color, fluid, dark colored and contained red blood corpuscles. There was a foul discharge from the vagina tinged with blood; almost complete suppression of urine; four drachms were obtained by catheter during four days in Hospital; urine acid in reaction, albumin (12% bulk) granular and epithelial casts.

She was mentally sluggish and developed muscular twitching and convulsions about 48 hours before death; coma developed about eight hours before death. Pulse ranged between 80 and 100 until last ten hours, during which time it grew frequent, irregular and weak.

From the vaginal bleeding and offensive discharge an abortion was suspected. Dilatation and curettage were performed. No debris was found that could be attributed to an aborted pregnancy. The rectum was examined at the same time. The mucous membrane was ulcerated and covered with a dark foul smelling mucoid substance. This extended beyond the parts in view. Her husband stated later that she had taken several tablets of corrosive sublimate. He did not know the number nor size. She took them for the purpose of producing an abortion; she thought she was pregnant.

Radial pulse imperceptible five minutes before death. Autopsy, esophagus more or less eroded, stomach contained about 1½ pints of a dark offensive fluid, mucous membrane almost entirely destroyed except about 1½ inches about the cardiac orifice. The duodenum mucous membrane largely destroyed and at points both in stomach and duodenum the deeper structures were eroded almost to the extent of perforation; erosions were to be found throughout the entire length of the small intestines. These had no relation to Peyers' patches; a whitish yellow croupous like membrane lined a large part of the small intestinal tract. The colon was well distended, the mucous membrane showed marked congestion with erosions here and there and well lined with an exudate as described above. The rectum showed a similar condition; liver somewhat enlarged; Spleen congested soft and pulpy; capsule stripped easily; pancreas hardened, but not enlarged; kidneys resembled much the large white kidney; they were enlarged, soft, capsule stripped easily, cortex thickened, pale and granular. No distinct calcareous deposits could be found such as sometimes occur in mercurial poisoning, yet there were small hardened points that were distinguishable.

II. CASE OF FEMORAL ANEURISM.

Mr. R., mulatto, aged 30 years, teamster, has had measles, mumps and gonorrhea; no history of syphilis; hemorrhage from bowel on April 1st, 1903, to extent of probably a pint, no hemorrhiods; bleeding from the nose frequently, often during heavy lifting and when stooping forward; moderate user of alcoholics for several years; arteries a little sclerosed, temporal artery tortuous, heart somewhat hypertrophied, apex just internal to nipple line, impulse diffused over an area of 1½ inches, aortic second sound quite accentuated.

Present trouble began during the latter part of February, 1903. First noticed a small pulsatile tumor about as large as an olive in right femoral region, just below Poupart's ligament, but not painful until April 2nd, 1903. It was first noticed after heavy lifting. Tumor continued to enlarge, become more painful and interfere with his work. Entered Protestant Hospital on April 9th, 1903. Tumor then about the size of a baseball, pulsatile, expansile, painful and a distant systolic bruit, blowing in character, over and below tubor. It increased rapidly in size. Operated on April 10th, 1903, a. m. Incision made about three inches long, above and parallel with Poupart's ligament, ligating external iliac artery with No. 2 cat-gut; incision closed by two rows of continuous cat-gut sutures. Leg was bound with elastic bandages and kept elevated. The leg remained warm and but little swelling occurred.

On eighth day his temperature went to 102 degrees, falling to normal on the thirteenth day. The tumor gradually decreased in size until less than half the size before operation; the mass became quite hard; the artery also hardened to the extent of about 1½ inches below tumor.

Patient was discharged on April 29th. When discharged, patient had good use of his leg, the tumor was decreasing in size and circulation in limb was well established.

At the May meeting of the Gallia County Medical Society the following officers were elected: President, Dr. T. L. Chadbourne; Vice-President, Dr. Ella G. Lupton; Secretary, Dr. Harry S. Allen; Treasurer, Dr. S. W. Williams. Censors were elected as follows: Drs. C. G. Parker, J. T. Hanson, J. B. Alcorn.

THE COLUMBUS MEDICAL JOURNAL.

A Monthly Magazine of Medicine and Surgery.

EDITORS.

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JUNE, 1903.

Editorial.

OHIO STATE MEDICAL ASSOCIATION.

The Dayton meeting Ohio State Medical Association marks a distinct epoch in the history of the organization. For fifty-six years it was a society of the physicians of the State. Two years ago a committee of three on "Reorganization" was appointed and empowered to consider plans and methods of perfecting the organization of the medical profession of Ohio, with instruction to report at the meeting of 1902. This committee, consisting of P. Maxwell Foshey, J. S. Beck, and H. J. Whitacre, submitted at the fifty-seventh annual meeting, with slight modifications, the model constitution and by-laws drafted and recommended by the American Medical Association. This report, as amended at a conference on the previous evening, was on the second day of the session unanimously adopted—to go into force and become effective immediately upon adjournment of the annual session of last year. The affiliated societies became the constituent societies of the reorganization association, but no charters were issued to them as component societies until the Dayton meeting, when the House of Delegates ordered the issuance of charters, thus completing the organization and federation of the entire medical profession of the State, under what promises to be a most effective plan of advancing medical science and elevating the medical profession. The large attendance at the Dayton meeting, representing nearly every section of the State, indicated a renewed interest. Considering that it was the first meeting under the new regime it must be said that everything passed off very smoothly. As the functions of the Council and House of Delegates are better understood there will be more dispatch in the transaction of business and consequently less time lost by the delegates from the general meetings. The reports of the councilors as to the progress of organization throughout the State not only dispelled all doubt as to the feasibility of the plan of organization, but made clear the fact that the profession of the State was ready to act, that it welcomed the new gospel of liberality, scientific discussion and professional amity. The success which attended their efforts in organizing new societies in counties that had none, in bringing together rival societies in the same county, and in encouraging university extension methods have met the expectation of the most optimistic and confirmed the wisdom of the promoters of this organization movement. We are unable to give exact data, but as appeared from the reports of medical councilors, medical societies have been organized in a great majority of the counties of the State. Dr. John B. Deaver's address was highly appreciated by the many physicians who heard it. Clinics were conducted at the Soldiers' Home on Thursday.

The following officers were elected: President, Dr. Chas. S. Hamilton, Columbus; vice-presidents, Drs. William W. Pennell, Fredericktown; Thomas M. Wright, Troy; Benjamin R. McClellan, Xenia, and Horatio Chisholm, Marion; members of the house of delegates, American Medical Association, Drs. John S. Beck, Dayton, Charles A. L. Reed, Cincinnati, and P. Maxwell Foshay, Cleveland.

The members of the Council were re-elected and their term of service fixed so that hereafter two shall be elected each year for a term of five years. Cleveland was selected as the place of meeting in 1904.

UNION OF THE COLUMBUS ACADEMY OF MEDICINE AND THE FRANKLIN COUNTY MEDICAL SOCIETY.

For some months past there has been a desire among the leaders of the profession in Columbus to unite the two medical societies into one organization. A committee of three was appointed by each society to confer and recommend a plan of union. These special committees, consisting of Drs. E. J. Wilson, Dickson L. Moore and Francis W. Blake, acting for the Academy, and Drs. D. N. Kinsman, George M. Waters and Clovis M. Taylor, acting for the Franklin County Medical Society, in joint session unanimously agreed to recommend to their respective bodies the following plan of mergement:

First. All members of the Franklin County Medical Society, not now subject to the provisions of the by-laws of the Columbus Academy of Medicine, who shall be unanimously certified by the boards of censors of the two societies acting conjointly, shall have a ballot cast for them in the affirmative by the Secretary of the Columbus Academy of Medicine, who shall be instructed so to do, and shall at once become members of the Academy upon the payment of four dollars each, which sum shall accompany their application for membership. Second. It is further agreed that this action, when taken, shall constitute a merging of the two societies and the Franklin County Medical Society shall be abandoned and cease to exist.

Each society adopted the above recommendation of the committees and authorized the respective boards of censors to carry it into effect.

More than half the members of the Franklin County Society were already members of the Columbus Academy of Medicine. The two boards of censors, Drs. M. T. Dixon, W. L. Rodgers, J. A. Frame, H. M. Platter and F. F. Lawrence, of the Academy, and Drs. J. U. Barnhill, P. C. Linhart, J. W. Wright, C. S. Means and Andrew Timberman, of the Franklin County Society, acted upon the remaining names. The following members paid their dues, were unanimously recommended, had the ballot cast for them and were thus elected to membership in the Academy. Others were favorably acted upon by the boards, but failing to pay the stipulated dues thus waived the opportunity of becoming members of the Academy on the terms of the mergement. The union was consummated at the June 15th meeting. The following members were thus received into the Academy:

Drs. G. G. Rogers, J. C. Bishop, John W. Wright, Elmer T. Kuhn, H. M. Hamilton, Herman Hoppe, McKendree C. Smith, G. W. Geisinger, M. H. Virden, W. F. Bay, E. S. Oman, H. Hunter, Frank S. Lott, Albert L. Stage, James F. Reynolds, L. C. Benkert, G. W. Hoglan, J. A. Reibel, H. C. Gabriel, J. H. Haines, W. D. Inglis, W. C. Pickering, Katherine W. Wray, G. W. Williard, H. H. Snively, Ernest Scott, W. A. Allaman, H. R. Garrett, Ira Mizer, R. J. Sharp, D. J. Snyder, John Donley and C. C. Kirk.

SMALLPOX PROTOZOON.

In a paper read at a recent meeting of the Boston Society of Medical Science, Dr. William T. Councilman, professor of pathology in the Harvard Medical School, announced the discovery of a protozoon which he believes is the cause of smallpox. The paper outlined the minute investigation carried on for two years which led to this important discovery. It "exhibited its history through every phase in a series of fifty photomicrographic lantern slides. By experiments on rabbits and cows, and observation of human patients, he showed that the germ has in man two cycles of development, while in animals, except the monkey, it has but one. That is the distinction between cowpox and smallpox, and the reason for the efficiency of vaccination."

The society before which it was read issued the following announcement: "It has been determined that smallpox is caused by a micro organism, a protozoon, representative of the lowest form of animal life. This seems to relate the disease with malaria, and distinguish it from many other infectious diseases caused by minute germs known as bacterial." It is said that Dr. Calkins, of Columbia, confirmed and enforced Dr. Councilman's statements. "This demonstration of the cause of smallpox, which could hardly be made except by experiments on living animals, may lead to discoveries along the same line of the cause of chicken pox, measles, and some similar diseases, the origin of which scientifically is yet unknown."

COMPLIMENTARY DINNER TO DRS. KAY AND SEYS.

The complimentary banquet given May 29 at the Arcade Hotel, Springfield, in honor of Dr. Isaac Kay and Dr. Henry H. Seys was a notable event in the history of the medical profession of that city and of the Clark County Medical Society under whose auspices the affair was managed.

Both Dr. Seys and Dr. Kay have been practicing physicians in Springfield for fifty years. Sixty physicians were present and all seemed bent on doing honor to the two venerable physicians for whom the banquet was held.

Dr. Rodgers stated that for three years as a medical student and later for forty-seven years as a practicing physician himself he had known these men and during all that time he never found them wanting when suffering was to be alleviated or sickness cured. In speaking of both of them he stated that they might well be called "the beloved physicians."

Both Dr. Seys and Dr. Kay made brief addresses which were followed by brief responses from Dr. N. P. Dandridge, Cincinnati; Dr. W. J. Conklin, Dayton; Dr. Starling Loving, Columbus, and Dr. C. A. L. Reed, Cincinnati. They all spoke of the eminent and useful work done by Drs. Kay, Seys and other physicians of Springfield, and the world-wide reputation that city had attained through their labors, mentnoning in particular the brilliant career of Dr. Alexander Dunlap, whose researches in abdominal surgery had given him national fame.

Medical News Notes.

Dr. Ralph Morden of Circleville died May 13 of Bright's disease.

Dr. J. M. Thomas is in New York City visiting hospitals and colleges.

Dr. David R. Francis, a prominent physician of Mansfield, died June 11.

Dr. E. A. Hamilton has returned from New York, where he was engaged in post-graduate study.

JOURNAL WANTED—COLUMBUS MEDICAL JOURNAL, Volume II, No. 11. Please communicate with editor.

Dr. John Donley and Miss Nellie Drugan were married Wednesday morning, June 10, at St. Patrick's Church in this city.

Dr. A. C. Yengling of Salem was elected Department Commander of the State Encampment of the Grand Army of the Republic.

Dr. Charles Helwig Sherman and Clara Belle Morehead were united in marriage at the home of the bride in this city Wednesday evening, June 17.

Dr. R. Harvey Reed and Dr. Nicholas Senn were elected honorary presidents of the Surgical Section of the International Medical Congress held at Madrid in May.

Dr. Reuben M. Bonar, surgeon in the Regular Army, and family, have recently returned from the Philippine Islands, and are visiting friends in Ohio and West Virginia.

Dr. David N. Kinsman of Columbus delivered the address to the class at the graduating exercises of the Nurses' Training School of the Miami Valley (Deaconess) Hospital of Dayton, May 15.

Dr. E. E. Levers, O. M. U., '98, Spring Valley, Wyoming, president of the Wyoming Senate, was called home on account of the illness of his mother, who lives near Massilon. He spent a few days with his many friends in this city.

Dr. J. W. Wright, of this city, read a paper before the Section on Ophthalmology, at the New Orleans meeting, A. M. A. In giving a list, last month, of Columbus physicians at that meeting we inadvertently omitted Dr. Wright's name.

Ralph W. Holmes, A. B., M. D., O. M. U., '02, of this city, has been chosen assistant superintendent of the Ohio State Hospital for Epileptics, Gallipolis. Dr. Holmes has been for the past year assistant physician at the Columbus State Hospital. He is in every way well equipped for the position with which he has been honored.

May 17 Dr. and Mrs. T. W. Jones celebrated their golden wedding anniversary with a reception at their home, 79 North Monroe avenue.

Dr. Jones was born in Chillicothe, October 23, 1822. His wife, who was Miss Josephine M. Williams, was born in Pickaway county, January 15, 1830. They were married May 17, 1853, and lived in Pickaway county until 1874, when they came to Columbus and have lived here ever since.

Dr. Jones graduated from the Cincinnati Medical University in 1874 and after practicing a few years entered the University of

Pennsylvania, where he graduated in 1853. He is a thirty-second degree Mason and also a Knights Templar.

Four children and three grandchildren are living and all were present at the reception. The children are Miss Ora Belle Jones of Columbus, Edward T. Jones of Minneapolis, Frank R. Jones of Bellaire, and Dr. Harry S. Jones of Columbus. Their home was beautifully decorated with flowers. Many friends called during the afternoon. We join with their many friends in wishing Dr. and Mrs. Jones many returns of their wedding anniversary.

AMERICAN CONGRESS ON TUBERCULOSIS.—The newly-elected Governing Council met May 6, 1903, and organized with Moritz Ellinger, Esq., as Chairman and Samuel Bell Thomas, Esq., as Secretary. The full board were in attendance or represented by proxy. The President and First Vice-President did not attend. The following were present in person or by proxy: Moritz Ellinger, Esq.; Dr. A. N. Bell, of Brooklyn; Dr. M. M. Smith, of Austin, Texas; Dr. A. P. Grinnell, of Vermont; Dr. Henry McHatton, of Georgia; Dr. J. M. P. Smithwick, of North Carolina; Dr. J. Mount Bleyer, of New York. The death of Dr. Charles F. Ulrich in February, 1903, was announced and a committee named on appropriate action. The action of the executive committee was unanimously ratified and approved in suspending Dr. George Brown from the position of Secretary and the election of Samuel Bell Thomas, Esq., as Secretary of the Congress in his place and stead.

The Council by unanimous action issued a call for the annual meeting of the Congress to be held in the city of New York on June 10, 1903, for the election of officers for the ensuing year, and appointed standing committees and a committee to prepare by-laws. A large number of prominent members were in attendance at the session. There was great interest felt in the work and plans to enlarge the numbers and usefulness of the society. Ex-Coroner Ellinger was unanimously elected Chairman of the Governing Council and Samuel Bell Thomas, Esq., Secretary. The executive committee, with Clark Bell as Chairman, the committee on censorship and on auditing of bills were continued until the annual meeting; the standing committees were organized and a committee of arrangements made for the annual meeting on June 10, 1903. A resolution was adopted accepting the offer of the Medico-Legal Journal to furnish every officer, delegate and member of the Congress of 1902 with the bulletin of the last Congress at half price and a tcertificate of membership full paid for 1903 who remitted $1.50 to the Medico-Legal Journal or to any of the officers of the Congress for its account in payment for said bulletin. The Council adjourned subject to the call of its chairman, Moritz Ellinger, Esq. Samuel Bell Thomas, Secretary American Congress on Tuberculosis.

Miscellaneous.

A RETROSPECT.*

BY DR. ISAAC KAY, SPRINGFIELD, OHIO.

Mr. President and Gentlemen—As one of those sharing the special honors of this joyful occasion, I wish to express my profound gratitude to the Clark County Medical Society for such a superb and heartfelt manifestation of its kindly regards. I wish also to acknowledge the great pleasure that it affords me to see present so many other physicians, besides those belonging to our own organization, and it is especially pleasurable for me to greet these distinguished medical gentlemen from Cincinnati, Columbus, Dayton and other cities, who have so signally favored us with their presence here tonight. I look upon this as one of the proud moments of my life. Having been engaged continuously in the practice of medicine for a little more than fifty-five years, I have long since learned to love and to appreciate the fellowship and good will of my professional associates; those who have also dedicated their lives to the science and practice of the healing art.

As I think of the present and compare it with the past, my mind naturally assumes a reminiscent mood. I cannot but contemplate the solemn changes which have occurred in the personnel of the medical profession here in Springfield, and elsewhere, with the last half century. When my highly honored colleague, Dr. H. H. Seys, and I first settled in this place, just fifty years ago, there were then but twenty-one persons practicing in Springfield, of whom we were the newest two, and the youngest.

Now there are about sixty practitioners of medicine here, of whom we two are the oldest, both in the work and in age. Since that time, all of the first named number of 21, with the exception of Dr. Seys and myself, of this city, and Dr. George P. Hachenberg, of Austin, Texas, have passed into the Unseen

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* Post-prandial remarks at a banquet given to Drs. Isaac Kay and H. H. Seys, by the Clark County Medical Society, May 29, 1903, in commemoration of the fiftieth year of their membership therein.

World. Many physicians coming to Springfield, some years after we did, men of age, of learning, and of distinction for skill and long service, such as Drs. Alexander Dunlap, of national and cosmopolitan renown, Edward Owen, Wilson G. Bryant, Joshua Swayne and others, had each been with us for many years—for a whole generation in fact—but they also have long since answered the call which is always promptly obeyed.

And in looking around me, I find that similar changes in our ranks have taken place in the surrounding towns and cities of our state and nation. I believe there is not one man now practicing medicine, either in Urbana, Xenia, Troy, Piqua, Hamilton or Dayton, whose professional career commenced so early as the year 1853, the year that is now being particularly emphasized by this friendly banquet. Drs. Starling Loving, of Colulmbus, and Dr. Norton, of Cincinnati, are the only physicians in those two cities whose professional activities, in this last half century, have thus far stood up against the erasive sweep of time. But in connection with these statements, I cannot forbear mentioning another such survivor in the ranks of our profession, now living in western Ohio. During the four years of my medical practice in Preble County, before coming to Springfield, I had a contemporary and neighbor, Dr. Isaac N. Gard, then as now, living in Greenville, O., a few miles north of my place. He had graduated at Philadelphia, the same year that I was born, and he had been practicing medicine in Greenville (then a village of two or three hundred, but now of six thousand inhabitants) from 1828, until within the last three years, a period of seventy-two vears. He is living there yet, at the advanced age of ninety-six years, and still retains a considerable degree of interest in the profession. Among Ohio's pioneer physicians, Dr. Gard stands now as a rare monument, commemorative of their noble past.

But the changes that have been wrought by the last fifty years, among the prominent public college teachers of medicine throughout our entire country, have been equally marked. Within the time mentioned, all the original professors of Starling Medical College, in our neighboring city of Columbus, have died; and every one of their immediate successors in the respective professional chairs, also have died with the single exception of Professor Starling Loving, who happily is with us here tonight.

Of all the vast host of distinguished professors and lecturers in the medical colleges of America, up to the year 1853, inclusive, there are none now living and in active service, with the exception of four, namely, George R. Miltenberger, of Baltimore; Nathan S. Davis, of Chicago, and John B. Johnson and Elisha Hall Gregory, of St. Louis.

But the high and responsible positions formerly occupied by those earlier incumbants, have since then been taken, and aer now held by many hundreds of the most talented, learned and skillful medical teachers that the world has ever known. There are now in active service, as teachers in the various medical colleges of America, more than a thousand men, many of them of great distinction in their calling, and who are aggressive in the acquisition and diffusion of medical knowledge. This is a much larger number of such teachers than can be found in any other one nation on the face of the earth. These men are leaving no stone unturned, in their search after new discoveries in physiology, pathology, therapeutics and hygiene. With this incalculable amount of educational force, who can estimate the advanced position to which medical science and practice will attain during the coming half century.

But our limited time will not allow us to indulge further in these fond anticipations of the future. Having cast this hasty glance at the proud past, let us now for a season, enjoy the present social occasion as we may, and let us continue to hope that through God's kind Providence, we shall ultimately have a happy realization of our most roseate view of the good time to come.

DECLARATION AS TO DANGERS OF ALCOHOL.

TO THE PROFESSION:

Three times during the last half century medical manifestos have been issued giving the opinion of physicians on alcohol. Then first was issued in 1839, and was signed by eighty-six persons. The second in 1847, and was signed by 2000 physicians, and the third appeared in 1871, with the signatures of over 4000 physicians, including the names of many leading physicians in all parts of the world. A fourth declaration of opinions is now being circulated for signatures, and reads as follows:

The following statement has been agreed upon by the Council of the British Medical Temperance Association, the

American Medical Temperance Association, the Society of Medical Abstainers in Germany, and leading physicians in England and on the continent. The purpose of this is to have a general agreement of opinions of all prominent physicians in civilized countries concerning the dangers from alcohol, and in this way give support to the efforts made to check and prevent the evils from this source.

In view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, we, members of the medical profession, feel it to be our duty, as being in some sense the guardians of the public health, to speak plainly of the nature of alcohol, and of the injury to the individual and the danger to the community which arise from the prevalent use of intoxicating liquors as beverages.

We think it ought to be known by all that:

1. Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action, and interferes with the function of the cells and tissues of the body, impairing self-control by producing progressive paralysis of the judgment and of the will, and having other markedly injurious effects. Hence alcohol must be regarded as a poison, and ought not to be classed among foods.

2. Observations establishes the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially to infectious disease), and shortening the duration of life.

3. Total abstainers, other conditions being similar, can perform more work, possess greater powers of endurance, have on the average less sickness, and recover more quickly than non-abstainers, especially from infectious diseases, while they altogether escape diseases specially caused by alcohol.

4. All the bodily functions of a man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centers.

5. Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally and physically. Thus deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved the importance and danger of this increase cannot be exaggerated.

Seeing, then, that the common use of alcoholic beverages is always and everywhere followed, sooner or later, by moral, physical, and social results of a most serious and threatening character, and that it is the cause, direct or indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease and death, not only in the case of those who take such beverages, but in the case of others who are unavoidably associated with them, we feel warranted, nay, compelled to urge the general adoption of total abstinence from all intoxicating liquors cians for their endorsement. I should be very glad to receive moving the evils which necessarily result from their use. Such a course is not only universally safe, but is also natural.

We believe that such an era of health, happiness and prosperity would be inaugurated thereby that many of the social problems of the present age would be solved.

This declaration has already received the signatures of over 1000 physicians in all parts of the country. I have been appointed chairman to present this manifesto to American physicians for their endorsement. I should be very glad to receive the name, title and address of any physician who is willing to aid by his signature to correct public sentiment and assist in the prevention of one of the great evils of the age. This is purely a scientific effort for the purpose of having a general consensus of opinion of the leading physicians of the world, and it is assumed that American physicians are equally enthusiastic and prompt to lend their signatures to this statement as in the wine-drinking countries of Europe. A postal card with address and title is earnestly solicited from every medical man who would like to be represented in this great movement for a clearer comprehension of the subject. Address,

T. D. CROTHERS.

Hartford, Conn.

Practical Therapeutics.

Acute Diarrhea.—The Philadelphia Medical Journal:

℞	Tannabalin	ʒ iss.
	Pulv. opii	gr. ij.
	Bismuth beta-naphtholate	ʒ j.

M. Ft. chart. No. xij. Sig. One powder every two hours.

Gastric Ulcer.—Clinical Review:

℞	Picrotoxin,	
	Morph. hydrochl., aa	gr. 1
	Atrop. sulphat	gr. 1-5
	Ergotin	*m* 20
	Aq. laurocerosi	ʒ 3

M. Sig. Four to six drops five to ten minutes before each meal.

Cramps, Colic and Diarrhea.—Medical Record:

℞	Morphin. muriat	gr. 1-12
	Ext. cannabis indic	gr. 1-8
	Nitroglycerin	gr. 1-600
	Ext. hyoscyami	gr. 1-4
	Oleoresin. capsici	gr. 1-20
	Ol. menth. pip	*m* 1-20

For one tablet or capsule.

Eczema.—The Journal des practiciens mentions the following ointment as giving excellent results in some cases of eczema:

℞	Camphorated naphthol	gr. 1 1-2
	Zinc oxide	gr. 75
	Petrolatum	gr. 750

For Diabetes Mellitus:

℞	Liquor potassi arsenitis	fl. ʒ ss	2
	Sodii salicylatis	ʒ vi	24
	Potassi iodidi	ʒ iii	12
	Aquæ q. s. ad..	fl. ℥ viii	240

M. Sig. One to two teaspoonfuls in water after meals; use in rheumatic subjects.

For Dyspepsia:

℞	Acid hydrochloric diluti	fl. ʒ vi	23
	Tincturæ capsici	fl. ʒ iv	15
	Tincturæ nucis vomicæ	fl. ʒ ii	8
	Tincturæ quassiæ q. s. ad..	fl. ℥ iv	120

M. Sig. One teaspoonful in water after meals. For atonic dyspepsia of alcohol drinkers.

Recent Medical Books.

BOOKS RECEIVED DURING MAY.—Diagnosis of Diseases of Women. Lea Bros. & Co. Author, Palmer Findlay.

Diseases of the Eye. Lea Bros. & Co. Author, Veasey.

Practical Medical Series, Obstetrics. Year Book Publishers.

International Clinic, Volume I. J. B. Lippincott Co. Author, Kelly.

Bacteriology. Lea Bros. & Co. Zapffe and Gallaudet.

FINDLEY'S GYNECOLOGICAL DIAGNOSIS. The Diagnosis of Diseases of Women. A Treatise for Students and Practitioners. By Palmer Findley, M. D., Instructor in Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. In one octavo volume of 494 pages, richly illustrated with 210 engravings and 45 full-page plates in colors and monochrome. Cloth, $4.50, net; leather, $5.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Professor Findley has appreciated the fact that medical literature in the English language has hitherto lacked any work paralleling several important books of which German practitioners have had the advantage. Of course, Americans have a number of excellent treatises on Gynecology as a whole, but their great scope prohibits a full consideration of two of the most important bases of the whole structure, namely, the special pathology and diagnosis. In the present work this desideration is completely supplied. The author never loses sight of the fact that the purpose of the book is clinical, and to this end he focuses in it all the most modern as well as the long established methods of arriving at a diagnosis. The well-recognized procedures for pelvic examinations, the macroscopic appearances and the microscopic findings are all fully represented, special stress being laid on the latter on account of their great practical importance. "Without the microscope" he writes, "a diagnosis is not always possible," a statement which implies that modern methods in their entirety are competent to guide to a diagnosis in all cases.

M.

CULBRETH'S MATERIA MEDICA AND PHARMACOLOGY. Third Edtion. A Manual of Materia Medica and Pharmacology. Comprising all Organic and Inorganic Drugs which are and have been official in the United States Pharmacopœia, together with important Allied Species and Useful Synthetics. By. David M. R. Culbreth, M. D., Professor of Botany, Materia Medica and Pharmacognosy in the Maryland College of Pharmacy, Professor of Materia Medica and Pharmacognosy in the University of Maryland Medical and Dental Schools, Baltimore. Third edition enlarged and thoroughly revised. In one octavo volume of 905 pages, with 473 illustrations, cloth, $4.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

This third edition of Culbreth's Materia Medica and Pharmacology, is a most excellent work—a mine of information upon the vast range of subjects covered by the Materia Medica and Pharmacology of to-day. This edition not only shows a thorough revision to date, but it also reflects the future by forecasting the new United States Pharmacopœia. The recapitulation tables also have been compiled in accordance with this same list, and therefore contain only those drugs which will be recognized officially. In many other respects the entire volume will be found to reflect the spirit of the new Pharmacopœia, and it will be of peculiar interest and value to all who desire to be posted in advance upon the coming changes so far as they affect Materia Medica and Pharmacology. The arrangement of the work is based upon the principle of associating, as nearly as possible, those substances, organic and inorganic, which have a common or allied origin, allowing those next related to follow in regular order, the basal or parental source thus being kept paramount.

Organic drugs, carbon and synthetic compounds are arranged similarly, their chemical relationship, however, being borne always in mind. Measurements and doses are expressed in both the ordinary and metric systems, and temperature is stated in both Centigrade and Fahrenheit scales.

Several pages have been devoted to the pronunciation of words more or less troublesome to the average student, the aim evidently having been to follow the best philologists rather than general custom. *

DISEASES OF THE PANCREAS, DISEASES OF THE SUPRARENAL CAPSULES, AND DISEASES OF THE LIVER. By Dr. L. Oser, of Vienna, and Drs. H. Quincke and G. Hoppe-Seyler, of Kiel. The entire volume edited, with additions, by Frederick A. Packard, M. D., late Physician to the Pennsylvania and to the Children's Hospitals, Philadelphia, and Reginald H. Fitz, M. D., Hersey Professor of the Theory and Practice of Physic, Harvard University Medical School, Boston. Handsome octavo of 918 pages, illustrated. Philadephia, New York, London. W. B. Saunders & Company, 1903. Cloth, $5.00 net; Half Morocco, $6.00 net.

This book combines in one volume the sum of our knowledge concerning diseases of the Pancreas, the Suprarenal Capsules, and the Liver. Any contribution on these subjects is of great interest to the profession, and these monographs, proceeding from such distinguished investigators, will be found of unusual importance. In the section on the Pancreas and the Suprarenal, the numerous experiments upon animals cited will be of the greatest value to the pathologist, the clinician, and the pathologic anatomist, affording an insight into the more deep-seated processes and offering an opportunity of comparing the disturbances of function produced by morbid conditions experimentally induced, with bedside and autopsy observations.

In editing these sections the editor has availed himself of the writings of Korte and Mayo Robson, especially the latter's important treatise on the etiology and treatment of chronic pancreatitis. An editorial addition to the section on the Suprarenal Capsules which seems especially noteworthy is the investigations and discoveries on the active principles and therapeutic properties and suprarenal extract.

The excellent article on the liver is as thorough and complete as those on the Pancreas and Suprarenals. Dr. Packard's careful clinical work and his interest in the diseases of the Liver, mark him as the most suitable person to edit this article. A survey of this work shows numerous critical additions, embodying the very latest contributions, besides expression of his own views regarding subjects under discussion. He has devoted special care to diagnosis and treatment, including the surgical procedures that have recently found their place in this field. With these numerous editorial additions the articles are brought fully up to date, and have no equal in our language. M.

TUBERCULOSIS. Recast from Lectures Delivered at Rush Medical College, in affiliation with the University of Chicago. By Norman Bridge, A. M., M. D., Emeritus Professor of Medicine in Rush Medical College; Member of the Association of American Physicians. Handsome 12mo volume of 302 pages, illustrated. Philadelphia, New York, London. W. B. Saunders & Company, 1903. Cloth, $1.50 net.

In this excellent work the practical side of the care and management of those sick with the various non-surgical forms of tuberculosis has been concisely stated. Full consideration has been given to prophylaxis, an all-important phase of the subject that has heretofore been neglected. There are also chapters upon the Bacillus of Tuberculosis; on the Pathology, Etiology, Symptoms, Physical Signs, Diagnosis and Prognosis of the disease, each treated in the judicious and thorough manner to be expected in a work by such a well-known authority as Dr. Bridge. Treatment is accorded unusual space, there being chapters upon Hygiene, Treatment, Management of the Diseased Lung, Climatic Treatment, Medicinal and Local Treatments, Special Treatments, besides a chapter devoted to the subject of Sanatoria. Altogether the work is a most valuable one, and we heartily recommend it to the practitioners as the latest and best work of its pretensions it has been our good fortune to review. M.

DISEASES OF THE STOMACH. By. Dr. F. Riegel, of Giessen. Edited, with additions, by Charles G. Stockton, M. D., Professor of Medicine in the University of Buffalo. Handsome octavo volume of 835 pages, illustrated, including six full-page plates. Philadelphia, New York, London. W. B. Saunders & Company, 1903. Cloth, $5.00 net; Half Morocco, $6.00 net.

This volume, like the others of this excellent practice, is thorough and complete. The importance of examining the stomach-contents in diagnosis, and the various methods of obtaining the contents and performing the examination are discussed with the accuracy and clearness that spring from wide experience. Full consideration is given to the hydrochloric acid question as a factor in the pathology of stomach diseases, the latest views having been incorporated by the editor. Particular attention has been accorded disturbances of motility, and their influence in the disturbances of secretion. It is evident that careful study has been devoted to the subject of impairment of the absorptive powers, and the significance of gas-fermentation has been emphasized.

The eminent editor, a recognized authority on diseases of the stomach, has added to the already excellent German text his own extensive experience, bringing the work in accord with our present knowledge. We are confident tha tfor scientific excellence and completeness, as well as for mechanical perfection, this work stands unrivalled. M.

MEDICAL JURISPRUDENCE, INSANITY AND TOXICOLOGY. By Henry C. Chapman, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Third Edition, Thoroughly Revised, Greatly Enlarged, and Entirely Reset. Handsome 12mo. volume of 329 pages, fully illustrated, including four colored plates. Philadelphia, New York, London. W. B. Saunders & Company, 1903. Cloth, $1.75 net.

This work is based on the author's practical experience as Coroner's Physician of the City of Philadelphia for a period of six years. It is, therefore, of unusual value to the medical and legal professions, presenting, as it does, the information gained from active participation in medicolegal cases. This third edition, enlarged by the addition of new matter to the extent of seventy-five pages, has been entirely reset, and it is evident that in its preparation every page has undergone a careful scrutiny, so as to include the very latest advances in this important branch of medical science. Much of the matter has been rearranged, the text has been more fully illuminated by additional references to cases, and a number of new figures and tables have been added.

In reviewing this excellent work we have found that it covers the field completely and thoroughly, nothing of practical importance to the physician or lawyer having been omitted. We commend it as one,of the very best works of its kind published, just such a work as every practitioner needs in his library. *

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D. Volume I. March, 1903. Lea Bros & Co., Philadelphia, Pa., 1903.

The first volume of Progressive Medicine has much interesting matter to the profession. The first article is contributed by Charles H. Frazier, on Surgery of the Head, Neck and Chest. James B. Herrick reviews the present status of Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza. The other subjects are on Diseases of Children, Pathology, Laryngology, and Rhinology, Otology. The general practitioner will find these volumes valuable as time-savers in looking up the progress and present status of medicine and surgery. M.

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"THE PHYSICIAN AND HIS IDEALS."*

BY REV. CARL GREGG DONEY, A. M., PH. D.

This subject, for the sake of convenience, is limited to the "physician"; but what shall be said is for the pharmacist and dentist as well as medical doctor. The application is so general that there is little reason why it should not be addressed to men in every work. But to the men and women who have been thinking and doing, who today are sent as young eagles from a nest when their wings have grown sufficiently to bear them up, it may have an especial suggestiveness.

In this period of time most men believe they are doing a very practical work in a very practical manner. For me, therefore, to ask you to think about ideals may seem to demand an apology or an explanation. Ideals are permitted to the poet and the lover, may be to the sophomore in college, and of course to the preacher; but for men who eat flesh and have iron in their blood, who are in the world and doing the work of the world they are unworthy serious consideration. I hold that this is a deceptive heresy; and for this chosen subject there is offered neither apology or explanation. Every man has his ideals, must have them and cannot banish them. Such persistent possessions, helpful or otherwise, merit sober thought.

For a thinking being the ideal is a mental necessity. There may be life without conscious intelligence, but it is in the sphere of the plant and brute. The moment you touch man you are in contact with an intelligence and an inquiring mind. The world with its seething scenes of change and progress, of action and reaction brings him face to face with life-long questions: What does it mean? Whither is it tending? And to the problem of the outer world there is added that of the inner life: Whence came we? For what purpose and whither do we go?

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*Address at Annual Commencement of Ohio Medical University, May 16, 1903.

As a rational creature, man is compelled to have some view of these two worlds. He cannot go on as the beasts of the field under cloud and sunshine, famine and plenty, birth, activity, and death without demanding an answer. Facing what actually is in these worlds, he sees much of discord and confusion and over against them there arises a protest. Some things he would have different, the times are partially out of joint; and from his own intelligence there emerges an ideal, the old Jerusalem of fact contrasted with the new Jerusalem of vision. He feels that there is a larger, loftier life than he has yet experienced; there are realms still unexplored; vistas of truth unvisited, high-born relations unestablished. Though he be born a peasant or a slave there is an inner stirring that tells him of a mighty latency in nature, and of a self-attainment and mastery for himself where every faculty and force are subject to the royal kingship of the soul. He does not believe that the discord of the outer world is inherent or that insufficient life is a fixed decree for him. He sees ignorance, misunderstanding and disobedience, sees man wrestling with nature and in conflict with himself. These are realized facts and over against them appears the picture of what ought to be. There is a real world; out from it and ahead of it emerges the beckoning of an ideal world. Thus is he compelled to think. To live in the one sphere would be to forget objective values; to live in the other would be unthinking materialism, would be to cut from the heavens the very stars to which he binds his chariots.

Still further, I hold that the ideal is a practical necessity, that even the most prosaic must dwell in the realm of vision. Three things conspire to produce a perfect work. There must be ability. You came to this University that the wealth of crude ore within you might here be ground and fashioned into instruments of finer service. To this essential, let stability be added. The erratic genius does nothing but disappoint. Columbus wrote in his ship's journal, "We this day sailed westward, which is our course," and he discovered a continent. A vessel's prow held in one direction will reach somewhere sometime; left to itself it reaches nowhere anytime. But ability and stability are not enough, the ship must have a course and every work a pattern. And that is vision seeing, that is practical idealism. Michel Angelo's mental picture of Moses cost him more real effort than to carve the statue from the marble; but it was necessary before he could touch a chisel to the stone. Into it he put the genius of an artist, into the other he put the ability and stability of a first-class stonecutter. A few years since, Dr. Gunsaulus preached a sermon on the religious value of technical training. At its close, Phillip Armour said: "Mr. Gunsaulus, if you believe what you have said, I will furnish the money if you will do the work." And the Armour Institute is no more than the ideal of Gunsaulus turned into stones and class-rooms, teachers and students.

The ideal is still more than a mental and practical necessity; it is a creation having power, not only to woo, but to compel, men. It determines what a man shall become. Fourier says, "A man's destiny is conditioned by his attractions." What a man thinks, he tries to realize; and before he can put forth a deliberate endeavor, he must have, however vague it be, some thought-picture of it. Desire is mentally bound to its objects, and masters us when the object is so vividly imagined that it controls the attention. Whoever persistently thinks of one thing will find himself literally compelled to seek. Deliberate response of the motor organs is always preceded by a neurosis, and that is conditioned by a thought, by some image of what is to be attained. And conversely the neurosis, unless inhabited, is followed by a motor process.

When Wendell Phillips looked from the window of his law office and saw Garrison with a rope around his neck being hurried on by some of the first citizens of Boston, he also saw a vision. An ideal rose before him, and opposed to it was an awful fact. It was the fact of the black man's bondage, the reality of human slavery—the ignorance and cruelty, the superstition and degradation, the lash and the auction. Face to face with it was the ideal, the black man freed—schools and homes, self-respect and self-help, a man coming up like the Pharos from the blackened ashes of iniquity consumed. A full night of sleeplessness he passed with that vision burning itself into his soul.

And when next day in Faneuil Hall, a speaker in a mass meeting held to promote the enforcement of the Fugitive Slave Law, likened the slayers of Lovejoy to our patriot forefathers looking down upon them from the wall, Phillips was compelled to strike for the ideal he was seeing. Rising in his place in the rear of the room, he said: "Mr. Chairman, Mr. Chairman! Pardon me; but when I heard the speaker liken the murderers of Lovejoy to the patriot forefathers of our land, methought those pictured lips would break their silence to rebuke this recreant slanderer of the holy dead." What Phillips did then and thereafter for the enslaved was in obedience to the compulsion and pattern of his vision.

What hunger and cold are to the body, the ideal is to the mind. It compels activity, sending man forth to venture and achieve.

"From earth to lichen, herb to flow'ring tree,
From creeping cell to man, from man to what shall be;
This is the solemn lesson of all time,
This is the teaching of the voice divine."

That lesson and that teaching are born with man in his capacity and necessity of vision-seeing. The picture of a higher truth, a worthier life, a finer work is enemy to ease and indifferent peace. It spies out lands and leads the way o'er bridgeless Jordans into fertile Canaans. When Savonarola cried out, "Ye men of Florence, hear me or I die!" he spoke from a soul that was mastered and scourged to heroism by his vision. When Luther turned from the church door at Wittenberg, he faced a world that never more could have its old-time peace. It was staring at a truth which by and by set into people's minds and sent them out as pilgrims seeking liberty. And when John Brown was hung upon that Appalachian tree, a vision lifted o'er the nation which made a million men march south to meet a million marching north.

The ideal alone yields that compelling passion whereby man touches divinity and is no more the recreant clay. Some call, some cry, some inspiration and he stands girded with a sword in heaven bathed and blessed for holy service. When Dante and Burns and Browning wrote; when Titian and Correggio and Raphael painted; when Mendelssohn and Mozart and Handel composed; when Lind and Neilson and Patti sang they were answering the necessity of some great vision that had entered their lives and attuned them to a finer melody of truth. Yes, and so of that poor man who sees before him as he toils a picture of a home where wife and children wait his coming; and of that dying student saying, "I did my best and therefore all is well;" of that man who tested on himself the first few drops of ether ever made; of that one who purposely exposed himself to the bubonic plague to study it and die; and of those others who in tracheotomy take the diphtheritic membrane into their own throats and also die; and of those thousands who ride the night, cold, heat, storm and sunshine all alike to them—of these it may be said a light led them, and they followed.

So might we speake of the value of the true ideal to save from waste and incoherent action, to secure consistency of deliberative judgments, to shield from temptation and trial, and to emancipate from erraticalness and vacillation. But enough is seen to counsel sane deliberation and deepest wisdom when we face ideals; for surely these guides of life and springs of destiny ought not be touched except by clean and reverent hands.

When entering a profession, each one expects to have a few or many years of life to spend; and for the reason they are his only chance, they are tremendously important. There will be four channels through the normal life will flow; thereof his professional, domestic, public and religious activities. The ideals which a man brings to these duties and which he gradually acquires are the condition and the promise of what he may get out of life.

Some vocations are intrinsically bad and no one can consent to them who has not first suffered the destruction of his manhood. Into others essentially good, the person ruled by circumstances may have been thrust, only to find himself neither adapted nor inclined to it. The professional man is usually shielded from both these elements of weakness. Certainly the professions for which this University trains men are honorable and worthy the finest effort, Mr. Dowie to the contrary. Nearly always, too, a man comes to them with a willing mind and a certain native power. Easy-going natures are thwarted by the rigorous years of preparation and in the school there are those little fiery tests, providential compensations for the teachers, which consume the wood, hay and stubble of inefficiency.

Professional men are thus advantaged by this seductive process which ought to vouchsafe reasonable success to all. But if trained men fail in their chosen work it will be because they disesteem its glory and neglect the ideals of a consecrated service. Two men go out today, each with his ideal. Each will know he has a trained ability of a kind which the race will welcome. Their social rank will be high and they will win the esteem and love of many. They will enter into a heart intimacy with our lives, and to them the holy of holies of the home will open. They will be in places of power, in the seats of the mighty. One of these men says, "I will make my profession serve me. I shall use the leverage it gives me to gather wealth and ease and place and pleasure. Why these years of toilsome acquisition unless they now return to me the increase of a hundred fold." The other man is saying, "My profession is a means, and I shall use it to help men. It shall unstintingly minister to their needs, and the social place it gives me shall carry every blessing I command. Because I have wherewith to help a needy man, I am his debtor." The value of a man to society and to himself depends on the sort of idea that gets hold of him; and it is an easy quest to find the final rank of these two men. A man and his work ought to marry for some worthier purpose than money or position; leave such alliance to foreign nobility, so-called, and wealthy folly. It is the ideal of servantship that makes a man supremely great, and he who thrills not at the thought of doors of service open wide to him has lost the finest glory of the human life.

Nor will this be a purpose that can execute itself. By and by there will be unceasing calls, I hope; work that only shameless indolence will disesteem. But a certain voluntary labor the physical must assume. Too often the day of his graduation marks the highest point of his professional ability. He shelves his books, reads the Duchess, and falls asleep with eyes fixed on his diploma. The greatest malady of the professional man is laziness, although it is plainly disastrous to make the bookworm feel at home. That physician who has no ideal of evergrowing skill and does not seek its incarnation by persistent toil will be in truth a quack though shielded by the law. The world is moving and man's work moves with it. The physician who destroyed every book in his library written for more than ten years did a fairly sensible thing. Few sciences have advanced so rapidly in a generation as have medicine, dentistry and pharmacy. My birth-chamber knew no anesthetic and my childhood nightmares were to keep from falling in a lake of castor oil, where blue mass pills made islands for the devil and his imps to play upon. And to have a tooth extracted in those times marked a boy as hero, and he deserved the honor. The race is now to him whose prescriptions contain a full ingredient of brains, and the day of brew of witches made in dark of moon is going fast.

Because we deal with human life the ideal must have place for sympathy. The strong man who suffers with the weak opens a channel of influence which otherwise were closed. The silent understanding of another is sometimes more full of healing than a medicine. Mind speaks to body as body speaks to mind, and a sympathy that calms and soothes will be like cooling winds to fevered brows. Victor Hugo tells of his good Bishop Myriel that he "had the art of sitting down and holding his tongue for hours by the side of a man who had lost the wife he loved, or of the mother bereaved of her child." There is no enchantment quite so fine as fellow-feeling to admit one man to the secret chambers of another. To him who cares for us we open door after door of our natures until he moves a welcome guest through every room. In no other way can the physician come to know his patient. Let him be perfunctory, or interested in professional dignity and fees more than in men and he will never see the deep recesses of their souls. He who sympathizes with the sick gets something of the character that would come if he himself were sick. This fellow-feeling multiplies one's life, for when a man projects himself into the place of another he will come back to himself enriched by the experience of that other life. Great men thus gain their greatness. A hundred lives are theirs to be enjoyed, to teach and to uplift them. He who is self-contained may have an intense experience because it is so narrow, but it will be satisfactory only to a soul that builds itself upon a little plan. This matter of sympathy is not one-sided; he that most gives himself will find the larger self. Fra Lippo Lippi starved himself in the streets of Florence that he might study those who flung the half-stripped grape-bunch he desired till "soul and sense of him grow sharp alike" and he could paint life's flash, and then add soul. Of such it could be said, he suffered "With those whom he saw suffer. Hence it came

> That in our best experience he was rich
> And in the wisdom of our daily life."

Likewise the home will do its proper work when its ideals are best. A man whose life is passed with men attains no true self-worth whose home ideals are mean or low. The physician is the helper of the home. Every touch of his hand reaches back somewhere to a father's heart and a mother's love. He either casts aside the cloud that suffering brings or in spite of all his skill sees it grow deeper. He surely has no place in such a sacred spot who has himself no holy shrine of love that keeps him true and tender. This is not mere sentiment; true sentiment is not "mere sentiment." It is what life really is; and love is fact as life is fact. It has the power to glorify a service and to make men strong again. Home is the place where hearts grow brave, where discouragements are banished, where the soul that has been toiling in the lowlands is lifted to the heights where a transforming light wreathes out of marks of care the radiance of a halo. The modern life must have this influence. Intense demands of competition, the nervous haste of those who will get on, the seeming hardness of the race, and the felt indifference to the individual's weal make the quiet retreat a veritable necessity for the uncalloused man. The artisan or business man may protect himself by an impenetrableness, but such would be disastrous to the doctor. A friend who deals in silks allows nothing hard or rough to contract with his ungloved hand, for by the softest touch he judges of his silks. A physician brings his nature into contact with others when they are bruised and sore, and any lack of sensibility in him will cut more keenly than the knife. Home ought to minister to one's work. There is nothing that can take its place. Nothing has so fine a magic, and she or he who joins another for a life must also join the work. At the fireside the question of a man's success is largely answered. The peace and rest and inspiration that give men an invincible might take their rise in the home. The professionals who serve as guardian spirits of domestic joys will fail if they do not keep themselves responsive to those tender chords of men's natures which they play upon.

Every man is debtor to society. "He who can live without society," says Aristotle, "must either be a beast or god." The one we do not care to be, and to be the other we have not quite the hardihood to hope. We therefore take our place in the state, too often with little thought of what we may rightfully expect society to do for us, and with still less thought of what the public may rightfully demand of us. There are rational limitations to liberty, and man must be willing to surrender some privileges he enjoyed as a barbarian in order to receive the gifts of enlightenment. An ideal of social life therefore which springs from feelings of preference or prejudice is not worthy a man of culture and position. The trained mind of the physician ought to put into the social life the influence of an ideal that is rational and clean. Some ideals form themselves, tracing their origins back to unsurpassed feelings. These are seldom sane and safe. For those who can think, reason ought to be a creator of ideals. The ideals of men have not the same influence even in a democracy of universal suffrage. The vast majority of men are not leaders, but followers. The ignorance and wickedness of masses do not rule by their ignorance and wickedness; they do rule through their submission to great knaves, great fools or great men. Every man is someone's hero and leader, and some are heroes of the many. Is any one more rightfully the hero of a community? If faithful, he is already the ideal of patient service, of unselfishness, of tender sympathy and worthy character. And why may he not also be an ideal of citizenship? a hero in his service to the state? He has a grip on many who are led, and why should he not save them from the leadership of the fools and knaves? Or better still, his may be an ideal inviting to independent thought, to a rational and honest basis for public action. But only if he himself is worthy, the embodiment of his own just ideals. No man, and surely no physician, has a right to rest contented with the social order as it is. The outer life strikes in on men to curse or bless men and the servant of his kind must see the vision of still better things and labor to secure them. Because he knows their baneful effects more fully than other men, be it his to declare the evils of child labor and strong drink, to smite the social curse, counsel moderation in legitimate pleasures; and because he has the fullest knowledge compel conviction by the facts. I do not charge him with failure to do these things; I name these functions as elements in the ideal of his public obligations. He is first a man and then physician; and his purpose reaches farther than to heal the sickened body; he is to keep man sane as well as sound, holy as well as healthy for these conditions are bound together inseparably, and each one needs the allied strength of others.

Let it not be thought that such work is not the busiest of the doctor, that it belongs to others. There are no professional reformers, the fact of a man even saying he was such would take away all influence of reform. Real progress can only come from men of culture and judgment and honor who each in his place makes the social world a little cleaner.

The great difference between men is not the presence or absence of idea, it is in the quality of those ideals. Time was when the popular man was the man of physical power; he was the strongest fighter, the swiftest runner, the successful hunter, soldier, master of things and men by virtue of his might. A later period produced the epicure as the ideal man. He had means and life was not taken seriously; his joy and careless ease made him the envied one, the highest type of satisfied ambition. As a protest against this type of man, the stoic by and by appeared. The epicure found a poison in his cup, a worm in the bud; his carelessness was a mask that did not shield from pain and sorrow. No man was secure against them; therefore the great man was he who flinted his face, banished the ministries of pleasure and stolidly endured. Recent years have made life the subject or rational study in the light of every data; and the ideal today is the man of conscience rationally controlled, of religion deep and sane and practical.

Representatives of the earlier types still remain, the life of the race back to prehistoric times is being lived by some today. But the highest judgment gives them no place of honor now; he is greatest whose character and services are greatest, and he is best in these who takes into his life the superhuman Life as Guide, Interpreter and Inspirer. He who is dependent for direction on the momentary inclinations of sense and feeling will fall a prey to circumstances and his worthiest self will be pillaged

and despoiled. But he who follows the lead of God sees a great light burning that never fails or disappoints. Ruled by whim or fancy, life loses its glory and inspiration; he who aspires has the secret of perpetual youth. He never stagnates; he sees and believes in the unattained possibility beyond; nor is he desolate who has as his companion "the unreached which he may be."

The need is for men who really believe in God, who receive from Him the ideal that is solid, substantial and eternal. Earth-born visions may be outreasoned and replaced, heaven's visions neither change nor disappear.

NEW REQUIREMENTS FOR MEDICAL LICENSES.—After July 4, 1903, the following standard for a New Jersey license will go into effect: The academic requirements will be a certificate or diploma, issued after four years of study, either in a normal, manual training or high school of the first grade, in New Jersey, or in a legally constituted academy, seminary or institute of equal grade, or a student's certificate of examination for admission to the freshman class of a reputable literary college or an academic education considered and accepted by the State Superintendent of Public Instruction as fully equivalent.

The medical requirements will be four full school years of medical study, of at least nine months each, including four satisfactory courses of lectures of at least seven months each, in four different calendar years, in a legally incorporated medical college or colleges, prior to receiving the degree of Doctor of Medicine.

Candidates for examination or for the endorsement of a license issued by a recognized examining board of another State, will be obliged, after July 4, 1903, to comply with the new standard of requirements for a New Jersey license.

ECZEMA.*

BY J. B. M'COMB, M. D.,

Lecturer on Dermatology, Starling Medical College; Dermatologist, St. Francis' Hospital, Columbus, Ohio.

Eczema is an itching inflammation of the skin, presenting various appearances, according as it commences with macules, papules, vesicles, pustules or a combination of these, attended with exudation which usually escapes to the surface and forms crusts, or failing in which there is scaling.

In exact classification eczema cannot be designated a disease. Properly considered, it is a complex symptom which, like the catarrh of the mucous membrane, may arise from widely separate causes. The term eczema then implies a morbid condition of the skin (a lesion or assemblage of lesions) manifesting certain characteristic tissue reactions, dependent upon widely operating causes and thus in a broad clinical sense, only, constituting a disease.

Eczema seems to be considered by the general practitioner as a disease due entirely to external causes or irritants or to some micro-organism acting locally. This latter has never been clearly isolated or demonstrated. That local agencies do almost invariably excite the eruption is true, but in the great majority of cases something more than local irritation, some constitutional derangement, is necessary before a true eczema will be produced. True, eczema will occur and reoccur without any apparent external cause, but seldom, if ever, can it be produced by even continued use of local irritants unless there is some constitutional derangement, no matter how remote or insignificant.

Hebra, shortly before his death, said "that certain conditions of the human organism, partly transient, partly permanent, at one time increase and another time diminish the susceptibility of the skin to eczema." These physical conditions he terms "a predisposition" or "predisposing causes." Unless there is some debility or weakness of the skin, the chances of eczema are very remote. This debility is seldom seen except through some general systemic derangement or affection of one or more of the internal organs. One of the most common and important causes of eczema is defective nutrition. In erroneous, excessive or defective diet are found the efficient causes of many of these cases. This has many times been proven in the case of infants, where the eruption often resists treatment until there has been an entire change in the alimentation of the patient.

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*Read before the Columbus Academy of Medicine, April 20, 1903.

This is also seen in older children and adults, and occasionally acute outbreaks of the eruption can be directly traced to errors in eating or drinking.

Among the richer class of patients there is often an excessive consumption of food which, by clogging the system, predisposes toward eczema; while among poorer classes, the eruption can be traced to debility arising from deficient nutrition.

Defective assimilation and excretion are common causes, as are gastric and intestinal derangements. Their effects are several fold, as they lower the general vitality of the organism and permit the passage into the circulation of deleterious substances, by-products of digestion, which may effect the nerve supply or directly damage the tissues. Under this head come dyspepsia, constipation and such disorders.

As a result of these disturbances of assimilation and dis-assimilation, we have urinary derangements which are so constantly seen to be accompaniments of eczema that it cannot be questioned that there is some etiological connection.

Neurotic conditions are also accountable for many cases of eczema. This may occur in a direct manner from nervous exhaustion, strain or shock, or indirectly from reflex action. To this latter belong reflexes which have a gastro-intestinal, sexual or dental origin.

Disturbances of the circulation, as in varicose veins of the extremities, or hemorrhoids, often cause eczema. In adult life, the class of patients most often prone to eczema are those who lead a sedentary life or whose occupation requires long standing on the feet.

The sedentary life predisposes toward eczema by inducing a general sluggishness of the system, constipation, etc., while that arising from long intervals of standing, such as in laundresses, motormen and clerks, is invariably of the lower extremities and is due to the mechanical pressure of the column of blood which causes an exudation of fluid, while it hinders the absorption of effete matter by the capilaries and lymphatics. In those of active life, the mechanical aid in propelling the venous blood, given by the contracting muscles, overcomes the result of the pressure.

In conclusion, will repeat that, although atmospheric influences, mechanical and chemical irritants and parasitic elements play some part as exciting causes, if there was not some debilitated condition of the skin due to constitutional derangement, these external irritants would cause little, if any, eczema.

AMERICAN ACADEMY OF MEDICINE.—The twenty-eighth annual meeting of the Academy was held in Washington, D. C., May 11 and 12, 1903. President Charles McIntire submitted by title a paper on the "Results of the State Examinations for Medical Licensure in 1902," which when published will be of great value and convenience to any one studying the comparative requirements for license to practice medicine in the several states.

Dr. John Roberts, of Philadelphia, was elected President; Dr. Charles McIntire again became Secretary.

The next meeting of the Academy will occur at Atlantic City, N. J., in June, 1904, just previous to the meeting of the American Medical Association at the same place.

GIBBS MEMORIAL PRIZE.—The New York Academy of Medicine announces a prize of $1000 for the best essay on the etiology, pathology, and treatment of diseases of the kidneys. The competition is open to the regular profession of the United States, and essays must be in the hands of the committee of the trustees, 17 West 43d street, New York City, before October 1, 1904. The prize is known as the Edward N. Gibbs Memorial Prize.

ENLARGED TONSILS, A CAUSE OF MIDDLE EAR CATARRH.*

BY C. P. LINHART, M. D., COLUMBUS, OHIO.

In the many excellent articles describing the tonsils and their diseases very little notice, if any, is given to the middle ear complications arising from the extension of an acute or chronic inflammation of the tonsils. All throat surgeons are awake to the importance of attending to an abnormal growth of the adenoid tissue in the nasopharyngeal space. Here the enlargement of Luschka's tonsil with its direct encroachment upon the opening of the eustachian tubes soon produces more or less distressing symptoms in the middle ear. Sometimes there seems to be no special enlargement of the adenoid tissue in the vault of the pharynx when the faucial tonsils are enlarged. When the tonsils are of abnormal size or patient is subject to frequent colds with acute inflammation of the tonsils and other lymphatic glands, and where the surrounding tissue be hyperplastic, the additional swelling of the glandular tissue increases the obstruction to the opening of the eustachian tubes, leading to disturbances in the eustachian tubes and middle ear which occasionally produces a purulent inflammation of the middle ear.

The following cases illustrate the importance of the removal of the enlarged tonsils where there are frequent or severe inflammation of the tonsils and peritonsular tissue:

Case 1. Miss ——, age 24, attending college; complained of being unable to hear the lectures and was in fear of becoming deaf. She had sore throat, caught cold easily, and at the time she consulted me had purulent discharge from both ears. There was no trouble in the nose, and only a slight thickening of the glandular tissue in the vault of the pharynx but both tonsils were much enlarged. She complained of catching cold and was particularly affected by damp weather and on going out evenings. An operation for the removal of the tonsils was advised, to which she consented. There was no particular trouble with the throat after the operation. A saturated solution of boric acid was used to cleanse the ears, and in less than two weeks both ears had stopped discharging, and the openings in the drum membranes closed.

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*Presented at a meeting of the Middle Section of The American Laryngological and Otological Soc., Indianapolis, April 8, 1903.

It was the intention to massage the middle ear by inflation through the catheter, but the patient removed from the city and was not seen again for more than a year. During this time the hearing improved very much, so that she had no trouble in hearing ordinary conversation. There was no complaint of anything more than the ordinary colds of the wet seasons which produced no serious disturbance in the throat, and there was no trouble with the ears at all. The patient remarked about the absence of the colds which had troubled her so much before the operation.

One cold winter night, about a year afterwards (two years after the operation), the young woman went to church where there was a warm fire, and on going home found everything frozen up so that the gas would not burn, and as they had no other means of heating the house she was compelled to sleep in a cold room. She had as a result of this the worst cold that she had experienced since the operation. Her throat was somewhat sore, accompanied with some pain and ringing in the ears, which passed away in a short time.

Case 2. B. S., a young man 21 years of age, consulted me in regard to his deafness. On examination the nose and nasopharynx were found particularly free from any obstruction. The ear drums were retracted, and some difficulty was encountered in inflating the ears by means of the eustachian catheter. The tonsils were considerably enlarged. He said that he had trouble with his throat frequently, usually accompanied by ringing and pain in the ears. The tonsils were removed. As the patient lived in an adjoining town he was not seen again for a month. By this time the throat had healed nicely and the ears were inflated with surprising ease. He still complained, however, of some tinnitis. He was seen again at the end of another month and the inflation was so easy this time that the patient said the force of air was too strong for his ears from a politzer bag, so that only about half the ordinary pressure could be used without causing discomfort.

There is no improvement to report in this case in the hearing or tinnitis, but the appearance of the throat and improvement in the eustachian tubes promise an improvement with treatment. The operation was of too recent a date to expect much improvement in the middle ear at this time.

CONGENITAL HYPERTROPHY OF THE PYLORUS.*

BY WILLIAM D. INGLIS, A. M., M. D.,

Assistant to the Chair of Obstetrics, Ohio Medical University; Obstetrician to Protestant Hospital.

In presenting a paper on the above subject, it is not the purpose of the writer to call attention to an abnormality which is only a pathological curiosity and a disease which a pediatrist may see but once in a lifetime. But the frequency with which these cases are being described of late and the scarcity of American literature upon the same warrants a little thought and consideration on our part.

It has been, hitherto, an almost unknown malady and only have we been learning its nature from the post-mortem table of the large hospitals for children.

There have been recorded many cases of hypertrophy and stenosis of the pylorus occurring in adults and older children, but it is almost certain that these are of a different pathology and of a different cause.

In searching through the records found in the library of the Royal College of Surgeons the writer was able to collect over seventy cases of obstruction of the pylorus which were manifestly congenital and likely of the same pathology as the cases we are about to describe. Although some reports were at variance in respect to the pathological condition found, there was nevertheless a marked uniformity in the clinical history.

As early as 1841, Dr. Williamson, in the *London and Edinburgh Monthly Journal of Medical Science,* described a case which was in all probability this congenital variety of pyloric obstruction. Of later years numerous cases have been reported by Thompson, Peden, Fenwick, Hirshprung, Kaps, Alder and Meltzer, Newton Pitt and others.

There are yet some points in the etiology and pathology of these cases which are unexplained and in order not to be premature in our discussion of the disease we will review briefly the cases which I am at liberty to present.

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*Read before the Franklin County Medical Society, May 12, 1908.

By permission of Dr. Lees of London, in whose clinic the case appeared, I give you the following facts:

Case No. 1. Richard W., an infant, 7½ weeks old, was presented by the mother who said the child was suffering from constant vomiting. Weight, 6¼ pounds; somewhat emaciated. It was apparently a normal child other than the webbing together of the second and third toes of the right foot Examination showed chest organs in a healthy condition and nothing abnormal could be elicited by palpation over stomach, while the rest of the abdomen was negative and not in the least disturbed. Glandular system, negative. No apparent nervous derangements. The family history was good; father, 35; mother, 33. Both in good health; no history of tuberculosis, syphilis or rheumatism. Mother had had no miscarriages. She had passed through an uneventful confinement without any great excess or persistence of morning sickness. One child had died at twenty-one days, having retained nothing on its stomach from birth and giving a history very similar to our case. No post-mortem examination was held upon this first child. Hygienic conditions at home were moderately good.

The mother said it was a fine, healthy baby at birth, born after a normal labor, breast-fed for about two weeks. It did not gain in weight and always vomited three or four times a day after nursing. There was not much breast milk and what there was did not seem to satisfy the child. Accordingly a change was made and the child was fed upon a mixture of cow's milk and water, but the vomiting continued about the same until the sixth week, when almost every meal was followed by a violent expulsion of the milk through the mouth and nose. The child had lost over two pounds in weight since birth. The motions during the first few weeks of life were very small, green and slimy, while later they became yellow and apparently natural, though very small amounts passed.

During the first week after admission to the hospital peptonized milk was used. When it was given in small quantities as one ounce, it was sometimes retained for an hour or more, or occasionally retained altogether. Larger amounts were soon vomited, but it was observed that a second feeding immediately after a vomiting would often be retained. Lavage of the stomach was tried, using warm water, but this gave no evidence of improving the condition. Likewise broths, whey, cream and some prepared foods were used, only to be vomited again as the breast milk and cow's milk had been. During the third week the child was fed by lavage. Peptonized milk was poured into the stomach through a soft rubber catheter. This method seemed to give better results as vomiting became less frequent and only a small part of what was poured into the stomach was vomited. Yet there was the presence of food in the stomach, though in reduced amounts, three and four hours after it had been deposited there. Under this treatment the child seemed to rest better and the urine, which had always been diminished in quantity, was more abundant.

Even while lavage was being tried a meal of two or three ounces sucked from the bottle was immediately expelled. The child, by the eleventh week, was greatly emaciated and very weak, so that after suffering three convulsions it died quietly when 11 weeks and 5 days old.

On post-mortem examination there was found to be a normal condition of the chest organs. Intestines only partially distended and containing a small amount of yellowish feces. Kidneys, liver and spleen normal. The œsophagus was slightly dilated, the stomach considerably enlarged. The walls at the cardiac end were about a natural thickness, while the pyloric end as much thickened, length of stom., 4½ inches; width at greater end, 2¾ inches. The pylorus felt much like an oval mass of flesh. It was ⅞-inch in length, ¾-inch in thickness. The hypertrophy was almost entirely due to the increase of the circular muscle fibers. The mucous membrane, though wrinkled and compressed, was not increased in thickness; sub-mucous tissue may have been somewhat on the increase, but the longitudinal muscle fiber and the serous covering were normal. The thickening of the pylorus terminated more abruptly on the duodenal side and very gradually on the side of the stomach, differing in this respect from the pyloric hypertrophy of adults. It was possible to pass a probe through the lumen of the orifice, but when water was put into the stomach, even under moderate pressure, it would not pass through this pyloric orifice.

Case No. II. (By the permission of Dr. Hutchison of London):

Albert Lea, æt. three months; born after a normal labor; breast-fed for two months. Family history good. Appetite seemed to fail and child would not nurse. Vomiting occurred irregularly, perhaps once each day. This might come on 30 or 40 minutes after nursing, but later it was occurring immediately after eating and was more frequent. Other foods were tried but to no lasting benefit. Bismuth was administered as well as other remedies, but to no effect. On palpation, a small tumor was to be felt above and to the right of the umbilicus. It was freely movable and hard. Peristalsis was to be seen occasionally, going from left to right. Child continued to vomit food mixed with some mucous until it died from exhaustion 15 days after being admitted to hospital.

The post-mortem examination showed a condition very similar to Case No. 1. Circumference of tumor, 2 in. Enlargement was in this case also due to hypertrophy of circular muscle fibers; lumen of pylorus admitted a probe of 3 m. m. thickness, but would pass no fluid.

Regarding the surgical treatment of these cases it may be said that laparotomy and either dilatation or gastroenterostomy might be performed, but the results so far, of such operations have not been good, although complete recovery has been reported in a few cases. Yet since the nature of the disease precludes all successful medicinal treatment, the surgeon should be given a trial.

One writer has suggested as a causative factor in this disease, the excessive and severe morning sickness of the mother during pregnancy. While this condition has prevailed in a few mothers and in one who had taken a long sea voyage during the early months of pregnancy and had been severely troubled with seasickness, nevertheless the vast majority of cases reported failed to mention anything more than the usual morning sickness of pregnancy, but rather an uneventful period of confinement.

Dr. Thompson of Edinburgh has given the following suggestions regarding the etiology and pathology of the disease:

(1) The dilatation of the stomach and œsophagus, and the slight signs of irritation in the mucous membrane (when such are present) are, of course, merely the result of the muscular overaction of the stomach.

(2) The muscular hypertrophy of the pylorus and stomach in all is also merely a secondary occurrence, being obviously due to abnormally increased functional activity, and this (from the

degree of the hypertrophy, and the early age of the children) must have existed for a considerable period of intrauterine life.

(3) The essential lesion, therefore, is not a muscular but a nervous one—a functional disorder of the nerves of the stomach and pylorus leading to ill co-ordinated and therefore antagonistic action of their muscular arrangements.

(4) Such an antagonistic spasm of the pylorus and stomach must be connected with the passage downwards of the large quantity of liquor amnii which the fetus is believed to swallow during the later months of intrauterine life. It might be very slight in degree, and yet, owing to its constant recurrence, and the power of growth of the fetal tissues, it might lead in time to very great hypertrophy.

(5) The functional irregularity might conceivably be caused by an irritating property in the fluid entering the stomach. This, however, is rendered unlikely by the fact that there are no signs of severe irritation found in the mucous membrane of the stomach or elsewhere in the alimentary canal. The further fact that after birth, the vomiting is so largely influenced by the quantity, and so little by the quality of the ingested fluid is also, I think, against this view.

(6) It seems more in accordance with the facts and probabilities of the case to suppose that the essential fault, which gives rise to the muscular hypertrophy in utero, as well as to the vomiting after birth, lies not in the stomach's contents, but in its nervous mechanism and is probably due, in some way, to delayed or imperfect development.

LITERATURE.

(1) Thomas Williamson, "Case of Scirrhus of the Stomach, Probably Congenital." Lond. and Edin. Monthly Journal of Med. Sci.

(2) Länderer, "Ueber Angeborene Stenose des Pylorus."

(3) John Thomson, "On Congenital Gastric Spasm," The Scottish Medical and Surgical Journal, June, 1897.

(4) W. K. Peden, "Congenital Stenosis of the Pylorus." Glasgow Med. Jour., June, 1889.

FRACTURES OF THE CLAVICLE.

BY WILLIAM L. DICK, M. D.,

Professor of Orthopedic Surgery, Ohio Medical University; Orthopedic Surgeon to Protestant Hospital.

The clavicle forms the anterior part of the shoulder girdle, and is situated between the upper part of the sternum and the acromion process of the scapula. It is superficial and can be felt throughout its entire length, even in persons who are very fat. The direction of the clavicle is almost, if not quite horizontal, when the arm is lying quietly by the side, though in well developed subjects it may incline a little upward at its outer end. Its direction is very changeable with the various movements of the arm, and acts especially as a fulcrum to enable the muscles to give lateral motion to the arm. Its articulation with the sternum and acromion process is of the arthrodial variety and admits of a limited amount of motion in almost every direction. When the different movements take place in the joint, the clavicle in its motion carries the scapula with it, this bone gliding on the outer surface of the chest. This joint therefore forms the center from which all movements of the supporting arch of the shoulder originate, and is the only point of articulation of the upper extremity with the trunk. Its method of articulation, position, shape, and elasticity, render it less liable to fracture than would otherwise be; however, it is the most frequently broken than any other single bone of the body, with the possible exception of the radius. This is due to the fact that it is much exposed to violence, especially indirect, and is the only bony connection between the upper extremity and the trunk.

Fractures may occur by direct, or indirect violence, or from muscular action. The most common cause, however, is from indirect violence, from falls upon the hand or upon the shoulder. The bone may give way at any point, but usually at the junction of the outer with the inner two-thirds, or in other words at the junction of the two curves, which is the weakest part of the bone. The fracture may be transverse, but is generally oblique, and the displacement of the fragments inward away from the surface of the body; hence compound fracture of the clavicle is of rare occurrence.

The great nerve cords of the brachial plexus, and the main vessels lie beneath the bone, and are liable to be wounded in fractures resulting from direct violence, when from the force of the blow the fragments are driven inward. Fortunately they are protected by the subclavius muscle, which is interposed between them and the bone. The most prominent symptoms of fracture of the clavicle are pain, deformity in the line of the bone, with loss of power, and a dropping forward and downward of the shoulder, which is usually supported by the arm of the uninjured side. In oblique fractures the sternal fragment is drawn upward by the clavicular fibers of the sterno-mastoid muscle; and the acromical fragments is carried downward by the wait of the shoulder and the action of the serratus magnus, the latissimus dorsi, and the pectoralis major and minor muscles, so that the fragment falls beneath the level of the sternal fragment; the overlapping is produced by the acromical fragment being drawn inward and forward by the action of the pectoralis major muscle.

Fractures of the clavicle unite readily, and examples of non-union are of rare occurrence. Repair without deformity is also of rare occurrence; although there is usually some shortening with more or less angular deformity following oblique fractures of the clavicle, the functional results are generally very satisfactory. Surgeons differ in their method of dressing and treating fractures of the clavicle. The principle indication is to carry the shoulder upward, outward and backward, bringing the acromial fragment, the one principally displaced, into its normal position.

The best result with the least deformity may be obtained by treating the patient in the recumbent position, by placing the patient on a firm mattress, the head on a low pillow with chin slightly depressed so as to relax the sterno-mastoid muscle and relieve the tension on the sternal fragment. A folded napkin should be placed in the axilla to protect the surface, and the arm and forearm on the injured side should be flexed across the chest so that the fingers touch the opposite shoulder, and held in that position with a few turns with a roller bandage or adhesive strips. In this position the inferior angle of the scapula moves forward, and the superior angle backward carrying the acromial fragment into its normal position.

The patient should be kept in this position for two or three weeks, until union is sufficiently firm to allow the patient to be treated in the erect posture. The practical results are generally so satisfactory in fracture of the clavicle, that very few patients are willing to submit to treatment in the recumbent position. We must, therefore, select one of the various methods of treatment in the erect posture. Either the adhesive plaster, the four-tailed bandage, the Derault or Sayer dressing, the Velpeau, or some modification of the Velpeau dressing should be selected. The Velpeau dressing will be found very satisfactory in a great number of cases.

The time of removal of this dressing and its reapplication will depend upon the comfort of the patient and the manner in which the dressing keeps the parts in position. As a rule the dressing should be removed at the end of the second or third day and the parts inspected and the skin sponged off with dilute alcohol; the dressing reapplied and if the patient is comfortable and the parts in good position the dressing should be made at less frequent intervals until union is complete, which is usually at the end of the fourth or fifth week. At the end of this time the dressing should be removed and the arm supported in a sling, and the patient not allowed to use any forcible movement until eight or ten weeks has elapsed from the receipt of the injury. Although the adjustment of fractures of the clavicle by manipulation is easily accomplished, great difficulty is experienced in keeping them in position, as the unsupported weight of the shoulder causes a reproduction of the deformity. So far is I know there is no method of dressing these fractures that is entirely satisfactory. We should, therefore, select the dressing that gives the best results in the greater number of cases, and is the most comfortable to our patient.

According to the Journal of the American Medical Association, Chicago, raised the $1,000,000 for Rush Medical College within the stipulated time designated by Mr. Rockefeller in order to secure his munificent donation of $10,000,000 for the same institution.

Periscope of Medical Progress.

SURGERY OF PROSTATE.*

(Original Abstract.)

Anatomy.—Two lateral and a middle lobe constitute the prostate first described by Hume, 1806. The gland is not constant and is of many variations. Normally it is about one and one-half to two inches in its transverse diameter, one inch antero-posterior diameter, and one inch in depth. It is composed of Cowper's glands (each the size of a pea), numerous follicles and vascular tissue arranged to form about twenty channels lined with columnar epithelium (excretory ducts), through which a milky, slightly acid fluid passes to dilute the semen. All vertebrates fecundate in the same way. Blood supply is from the internal pudic artery. The venous blood enters the internal illiac vein through the dorsal vein.

Nerve supply is from the hypogastric plexus, and the filaments of the sympathetic.

Etiology.—Man is the only animal that has hypertrophy of prostate. No definite cause yet assigned; habits, disease and evolutionary changes from quadrupedal to bipedal state probably the most important factor. "Prostatic hypertrophy not found in Japan, India or China" (Otis).

Ammonius Lithotomus, B. C. 460-357; Johnnesde Romanes, 1555; Ran of Leydon and Frere Jean, 1700, in operating for stone no doubt contributed much to advance the various subsequent operations for prostatic hypertrophy.

Cystotomy may be said to have been inaugurated when the bladder was first opened for any purpose. Both perineal and suprapubic drainage have been successfully accomplished with more or less benefit in hypertrophy of the prostate.

Massage was first employed by Estlander, 1878; Hogge claimed priority in the use of electrical massage. Lewis, 1899, employed the finger and condemned instruments for this purpose. Neiswanger, 1900, employed cataphoric applications of iodine in hypertrophy of prostate.

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*Paper read before the Ohio State Medical Association, Dayton, Ohio, June 3-5, 1903.

Injection of various solutions, argentinitras, iodine and cocaine, into the prostate was done by Hall, 1887, no special effect. Haurate, 1896, injected testicular extracts into the prostate.

Ligation of cord was done by Mears, 1894, without effect. Ligation of illiac arteries was done by Bier, 1893, and Meyer, 1894, while Loze, 1898, removed the vesico venus plexus. Vasectomy was employed by Lonmean, 1895, since which time there have been several hundred such operations. Steinach, 1896, showed by experiments on rats that the removal of the seminal vesicles, and prostate gland does not lessen the sexual passion or ability to perform the sexual act, with a discharge of spermatozoon, but that fertilization is prevented. The ablity of the semen to fertilize is lessened by the removal of their vesicles. The operation of vasectomy has become obsolete.

Castration was first performed for prostatic hypertrophy by Mercier, 1857, but was not again performed until White, Ramm and Cobot, 1893, did it. Removal of one testicle is supposed to cause its coresponding prostatic lobe to undergo atrophic changes, while the removal of both testicles will cause atrophy of all the lobes. The operation was based upon the fact that Eunochs do not have prostatic hypertrophy. Several hundred cases of prostatic hypertrophy have been subjected to emasculation with more or less benefit. It should be done in but a few selected cases, such as extreme age or lessening of vitality or before more radical measures. The operation is seldom considered since the inauguration of prostatectomy.

Prostatotomy consists in incising the prostate by knife, cautery or otherwise for abscess, cysts, foreign bodies, injuries, or pathologic conditions. Tenotomy of levator prostate was first done by Wyman, 1885, and again by Andrews, 1902, with much beneficial result.

Urethral Prostatotomy.—Incising the prostate through the urethra by knife, catheter, and various other devices dates from Home, 1817, since which time many such operations have been done by as many different devices. Much benefit has been obtained from this method, but it is no longer considered rational.

Galvano-cautery has been employed since 1875, when Rabitsch and Bottini reported the result of their work. The cautery was very seductive and attended by much mortality, and uncertainty in its results. It is applicable (if at all) in but a few cases of a selected type. It cannot be considered a rational procedure as the cautery cannot be seen.

Perineal prostatectomy is the removal of a part or all the prostate gland through a medium transverse or lateral perineal incision. Gibb's question, 1857, was: "Cannot enlargement of the middle lobe of the prostate gland be removed by the lateral operation for lithotomy?" This is one of the earliest suggestions for the removal of the prostate gland through a perineal incision. Since this time many such operations have been made for this purpose, and there can now be no question as to this route and method being the most acceptable and beneficial operation for hypertrophied prostate. Prostatectomy with vesico-rectal anactomosis is an operation destined to become popular, and as frequent as any of the operations for hypertrophied prostate. It has been shown by Frank and Ricketts (experimentally) that uretherorectal implantation is not followed by kidney infection so frequently as when their implantation is made in the rectum. The danger decreases as the implantation approaches the internal sphincter. Vesico-rectal anastomosis is especially desirable in those cases where the rectal wall has been opened by catheter or otherwise, where the opening cannot be successfully closed, and in cases where the urethra has been destroyed to such a degree that the flow of urine cannot be reestablished through the penial portion. It is possible to remove the prostate, intra-rectal, after division of the sphincter, or if necessary completely dividing the sphincter ani by one or two lateral incisions. In those cases where the urethra has been destroyed, or where it cannot be maintained the rectal route is the quickest, safest done with less hemorrhage, better drainage, and without the possibility of a perineal fistula, which so often follows perineal prostatectomy.

Ricketts, 1902, succeeded in diverting the urine into the rectum in two cases of complete prostatectomy for emergency Vesico-rectal anastomosis has been done for several conditions of vesico-vaginal fistulæ. It has, however, become obsolete, because of other more desirable methods having been instituted. However, there are a few cases when the base of the bladder has been destroyed by disease, pressure during the delivery of offspring, or other injury in which there is no other alternative, but to make a vesico-rectal anastomosis. Just so with vesico-rectal anastomosis in the male it is not suggested as a routine operation, it is only to be employed in a selected type of cases. If the proper selection is made better results will be obtained than by other method in that type.

Prostatectomy Suprapubic.—Only a part, one or more prostatic lobes can be removed by this method, usually complete removal of the lobesis confined to the middle lobe for which it was first intended. Roonhysen, in cutting on the gripe or with grooved sound and gorget, found it impracticable and he was forced to perform the suprapubic operation for stone, which was probably one of the first suprapubic operations. Lisrink, 1882, was one of the first to remove the prostate gland, suprapubically, since which time many such operations have been made for prostatic hypertrophy with great success.

Of all operations for hypertrophied prostate the perineal and suprapubic operation remain supreme in their respective order.

Prostatectomy (perineal and suprapubic combined).—The combined operation has many advantages in a certain class of cases of prostatic hypertrophy. However, since the many prostatic retractors have been devised there is not the necessity for entering the bladder suprapubically. Fuller, 1895, removed the prostate gland, and drained through the perineum and suprapubically. Abscess of prostate is common and more frequently due to cysts, gonorrhea and trauma, usually gonorrhea. Most frequently the way of escape is into the rectum.

Tuberculosis seldom originates in the glandular tissue, primary disease being rare in the prostate. It is usually secondary, and may involve a part or all of one or more lobes. It was first described by Louis. Complete removal of the disease is much and should be done.

Echinococci most common parasite found in the prostate gland, usually of primary origin. The cyst usually ruptures into the bladder or rectum, in which case spontaneous recovery will ensue. If into the peritoneal cavity death may result or the parasites may become encysted, and remain harmless indefinitely.

Calculi form in the prostatic ducts, and may be discharged into the urethra or remain in the prostate to become encysted. Fuller, 1900, reports such a stone weighing three ounces.

Carcinoma of the prostate is more frequent in childhood, and beyond the age of fifty primary or secondary, usually the latter. Oftener in the civilized races, and originates, as a rule in the mucosa of the prostatic urethra. No treatment, surgical or otherwise, is at present of any avail. Beling, 1822, records an interesting case of prostatic carcinoma.

Sarcoma of the prostate is usually hard and of slow growth, originating in the cortical substance. More frequently found in the young. No hemorrhage except in advanced growths. May be primary or secondary, usually primary. London, Lancet, 1853, i, 473, mentions a case of sarcoma of the prostate. Early removal should be done, as it is the only hope.

The following standing committees of the Board of Health were recently appointed by Mayor Jeffrey, ex officio president of the board:

Laws, Rules and Regulations, J. U. Barnhill and George J. Schoedinger; Finance, P. D. Shriner and J. U. Barnhill; Registration Vital Statistics, Schoedinger and W. E. Edminston; Plumbing and Nuisance, Edministon and J. W. Clemmer; Water, Food, Supplies and Dairies, Barnhill and Edminston; Contagious, Infective Diseases and Hospitals, Clemmer and Shriner; Refuse Disposal, J. W. Clemmer and Shriner.

Dr. Justin Herold, of New York City, recovered a verdict of $12,158 against the Metropolitan Street Railway Co. for injuries received three years ago, in a collision while a passenger on one of their cars. The case was tried before Judge Leventritt, and a jury, and the Supreme Court. Dr. Herold is the well-known author of "Herold's Legal Medicine."

U of M

Practical Therapeutics.

DIARRHEA—SUMMER (Merck's Archives):

℞	Salol	1 dr.
	Bismuth Salicylate	3 dr.
	Oil Wintergreen	12 min.
	Chalk Mixture to make	3 oz.

Two teaspoonfuls, for adults, every 2 hours, after a preliminary purge of castor oil or calomel; children in proportion. If there is much pain, opium may be added.

℞	Bismuth Subnitrate	4 dr.
	Ichthalbin	2 dr.

Dispense as 12 powders, for adults; as 24 to 30 for children.

One powder every 3 or 4 hours, after freeing the intestines from products of decomposition.

℞	Resorcin Resublimed	15 grn.
	Tannalbin	2 dr.
	Glycerin	1 oz.
	Cinnamon Water to make	4 oz.

Dessertspoonful every 3 or 4 hours. Shake well before using. (For a child 2 or 3 years old.)

℞	Tannalbin	2 dr.
	Brandy	2 dr.
	Tinct. Opium	8 min.
	Syrup Fennel	4 dr.
	Distilled Water to make	2 oz.

Teaspoonful 4 to 6 times daily. (For infant 1 to 2 years old.)

℞	Resorcin Resublimed	6 grn.
	Tannopine	2 dr.
	Glycerin	3 dr.
	Peppermint Water to make	3 oz.

Teaspoonful every 3 hours. Shake well. (In infantile diarrhea with fermentation.)

℞	Lactic Acid	15 min.
	Syrup Lemon	1 oz.
	Water	1 oz.

Teaspoonful 3 or 4 times daily, after feeding. (In infantile diarrhea with green stools.)

THE COLUMBUS MEDICAL JOURNAL.

A MONTHLY MAGAZINE OF MEDICINE AND SURGERY.

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JULY, 1903.

Editorial.

A STATE PATHOLOGIC INSTITUTE.

It has long been the hope of the profession that the State Hospitals might be made to contribute more than they have hitherto done to the advancement of scientific medicine. That more has not been done is not so much the fault of these institutions, as it is that the legislature has not furnished the means for carrying out such work. Each of the several State Hospitals has a very creditable pathologic department and does much valuable work, but no provision has been made for carrying on this work on a very large scale, nor for publishing the results. In the valuable paper on "The Laboratory Movement in Ohio State Hospitals," read at the general meeting of the State Medical Association, Dr. A. P. Ohlmacher, Superintendent of the Ohio Hospital for Epileptics, pointed out the way for the establishment of a State Pathologic Institute, and secured for such a movement the unanimous endorsement of the State Association. The plan proposed is that a central laboratory for research and teaching be established as a part of the State Hospital system of Ohio. It has been suggested that this central research and teaching station be affiliated with the State University, in such way as to secure freedom from political interference, and that its management be vested in a board of trustees in which the medical profession shall retain a balance of power in order to secure at all times the best results for scientific medicine. The following are the resolutions as adopted at this meeting:

Resolved, That the Ohio State Medical Association endorses the project looking to the establishment of a Pathological Institute for the Ohio state medical institutions, whose chief function is to be that of original investigation, and which is to create a museum of morbid anatomy which shall also serve as the pathological exhibit of this Association. Be it further

Resolved, That this general meeting respectfully request the house of delegates of this Association to appoint a special committee of three members of the Association to forward the movement for a State Pathological Institute, bringing it to the attention of the component societies and individual members of this Association, and, with the co-operation of the Committee on Public Policy and Legislation, to the notice of the Governor and General Assembly of the State of Ohio. Committee on State Pathological Institute: Dr. E. J. Wilson, Columbus, Chairman; Dr. A. P. Ohlmacher, Gallipolis; Dr. A. B. Howard, Cleveland; Dr. Julius H. Jacobson, Toledo; Dr. F. W. Langdon, Cincinnati.

MEDICAL CORPS OF NAVY.

We have been furnished with the following statement from the Surgeon-General's office: The Fifty-Seventh Congress in its last session provided for an increase of 150 numbers in the Medical Corps of the Navy, 25 of whom are to be appointed each calendar year for six years. By the enactment of this law there is afforded to the young physician of the country an opportunity to take service in the Navy of the United States and an assurance of the continuance of this opportunity for the next six years. The number of vacancies in this Corps occurring from retirements, resignations, and casualties average about ten a year, which, added to the 25 created by new legislation, makes 35 appointments open to ambitious young medical men yearly.

"These appointments are to be made in the grade of assistant surgeon and are within the reach of any well-qualified physician between the ages of 21 and 30 who is a citizen of the United States. Examinations to determine the fitness of candidates for appointment are held in Washington, D. C., and at Mare Island, Cal., and the boards of examiners are in continuous session throughout the year. It is only necessary for any physician of the required age and citizenship desiring to enter the Medical Corps of the Navy to apply to the Secretary of the Navy for permission to be examined to insure being given an opportunity. No political or other influence is required, and the only testimonials needed are those bearing on moral standing and citizenship.

The examinations to determine the fitness of candidates for these appointments are conducted in the following order: 1, physical; 2, professional; 3, collateral.

The physical examination is thorough, and the candidate is required to certify, on oath, that he is free from all mental, physical, and constitutional defects. Acuteness of vision 12-20 for each eye unaided by glasses, but capable of correction by aid of lenses to 20-20, is obligatory. Color perception must be normal and the teeth good. If the candidate is found to be physically disqualified his examination is concluded. If found to be physically qualified his examination is continued, as follows: Anatomy and physiology, surgery, medicine, pathology and microscopy, obstetrics and medical jurisprudence, materia medica and physiological action of drugs, chemistry and physics, hygiene and quarantine, general aptitude, literary and scientific branches. Required aggregate percentages, 750.

Bandaging; tourniquets; four operations on cadaver; clinical cases (a written report being made in one case, giving history, diagnosis, prognosis, treatment, one prescription, at least, being written out in full Latin); urinalysis (chemical and microscopical examination of one specimen of urine); practical microscopy, and recognition of five mounted specimens (histological, pathological, and bacteriological); recognition of surgical instruments.

"The future prospects of the medical officer of the Navy, both for promotion and professional opportunity, are very bright, and the plan of enlargement of the Naval establishment already adopted and authorized, as well as that in contemplation, gives assurance that this outlook will grow even more promising."

It is said that "the professional opportunities afforded the officers of the Medical Corps are very good at present, and are constantly improving."

STATE MEDICAL EXAMINATION.

Following is a list of candidates by numbers and the result of the examination held by the State Board of Medical Registration and Examination, June 25, 26 and 27. There were ninety-two candidates—almost all graduates of literary colleges,—thereby receiving advance standing. They matriculated subsequent to the passage of the law requiring examinations and hence were not exempt. Eleven were homeopathists, one eclectic, seven osteopaths. The school of practice is evident from the college of graduation:

No. Candidate.	College. Year.	Grade.
170	Ohio Medical University, 1903, Columbus, O.	92 4-9
171	Ohio Medical University, 1903, Columbus, O.	88 2-9
173	Ohio Medical University, 1903, Columbus, O.	88
174	Ohio Medical University, 1903, Columbus, O.	89 6-9
175	Ohio Medical University, 1903, Columbus, O.	77 8-9
211	Ohio Medical University, 1903, Columbus, O.	92 8-9
172	Columbus Medical College, 1878, Columbus, O.	65 5-9
176	Cleveland Univ. of Medicine and Surgery, 1894, Cleveland, O.	63 1-9
216	Cleveland Univ. of Medicine and Surgery, 1897, Cleveland, O.	75
177	Homeopathic Hospital Medical College, 1883, Cleveland, O.	43
192	Cleveland Homeopathic Medical College, 1903, Cleveland, O.	80 4-9
193	Cleveland Homeopathic Medical College, 1903, Cleveland, O.	76 3-9
221	Cleveland Homeopathic Medical College, 1903, Cleveland, O.	84 2-9
238	Cleveland Homeopathic Medical College, 1903, Cleveland, O.	81 2-9
239	Cleveland Homeopathic Medical College, 1903, Cleveland, O.	90 3-9
178	Northwestern University Women's M. C., 1895, Chicago, Ill.	83 3-9
184	Northwestern University, 1903, Chicago, Ill.	95 1-9
179	Jefferson Medical College, 1900, Philadelphia, Pa.	84 4-9
188	Jefferson Medical College, 1903, Philadelphia, Pa.	94 2-9
194	Jefferson Medical College, 1903, Philadelphia, Pa.	95 6-9
195	Jefferson Medical College, 1903, Philadelphia, Pa.	95 8-9
227	Jefferson Medical College, 1903, Philadelphia, Pa.	87
180	University and Bellevue H. M. C., 1903, New York City.	93 3-9
181	Medical College of Ohio, 1879, Cincinnati, O.	68
186	Medical College of Ohio, 1897, Cincinnati, O.	92
190	Medical College of Ohio, 1903, Cincinnati, O.	96 4-9
191	Medical College of Ohio, 1903, Cincinnati, O.	82 6-9
209	Medical College of Ohio, 1903, Cincinnati, O.	89 6-9
210	Medical College of Ohio, 1903, Cincinnati, O.	91 1-9
212	Medical College of Ohio, 1903, Cincinnati, O.	91 6-9
246	Medical College of Ohio, 1903, Cincinnati, O.	94 5-9
182	Illinois Medical College, 1902, Chicago, Ill.	84 8-9
183	Columbian University Medical School, Washington, D. C.	91
185	Georgetown University, 1894, Washington, D. C.	94 1-9
187	Johns Hopkins Medical School, 1903, Baltimore, Md.	94 1-9
189	Cleveland College of Physicians and Surgeons, Cleveland, O.	91 4-9
236	Cleveland College of Physicians and Surgeons, Cleveland, O.	89 2-9
196	Eclectic Medical Institute, 1903, Cincinnati, O.	89 2-9
197	Starling Medical College, 1903, Columbus, O.	84 3-9
199	Starling Medical College, 1903, Columbus, O.	94 3-9
213	Starling Medical College, 1903, Columbus, O.	84 3-9
214	Starling Medical College, 1903, Columbus, O.	89 5-9
215	Starling Medical College, 1903, Columbus, O.	89 6-9
219	Starling Medical College, 1903, Columbus, O.	86 8-9
237	Starling Medical College, 1903, Columbus, O.	85 2-9
198	Rush Medical College, 1901, Chicago, Ill.	92 3-9
228	Rush Medical College, 1903, Chicago, Ill.	94 2-9
229	Rush Medical College, 1903, Chicago, Ill.	92 4-9
241	Rush Medical College, 1901, Chicago, Ill.	85 3-9
200	College of Physicians and Surgeons, 1903, Chicago, Ill.	93 1-9

201	College of Physicians and Surgeons, 1903, Chicago, Ill.	87 6-9
202	University of Naples, 1900, Naples, Italy	Failure
203	University of Michigan, 1903, Ann Arbor, Mich.	93 5-9
204	University of Michigan, 1903, Ann Arbor, Mich.	92 3-9
205	University of Michigan, 1903, Ann Arbor, Mich.	92 5-9
240	University of Michigan, 1901, Ann Arbor, Mich.	96 1-9
206	University of Michigan, Hom. Med. Dep't, 1903	92 8-9
207	University of Pennsylvania, 1903, Philadelphia, Pa.	91 3-9
244	University of Pennsylvania, 1899, Philadelphia, Pa.	98 3-9
267	University of Pennsylvania, 1903, Philadelphia, Pa.	91 5-9
208	Miami Medical College, 1870, Cincinnati, O.	61 7-9
224	Miami Medical College, 1903, Cincinnati, O.	96
247	Miami Medical College, 1903, Cincinnati, O.	91 1-9
266	Miami Medical College, 1903, Cincinnati, O.	93 7-9
217	Homeopathic Medical College, 1889, Kansas City, Mo.	Failure
218	Chicago Homeopathic Medical College, 1903, Chicago, Ill.	88 4-9
220	Western Pennsylvania Med. Col., 1903, Pittsburg, Pa.	91 7-9
222	Detroit College of Medicine, 1903, Detroit, Mich.	82 4-9
223	Detroit College of Medicine, 1903, Detroit, Mich.	81
225	Detroit College of Medicine, 1903, Detroit, Mich.	83 5-9
226	Michigan Col. of Medicine and Surgery, 1903, Detroit, Mich.	89
230	Baltimore Medical College, 1903, Baltimore, Md.	82 6-9
233	Baltimore Medical College, 1902, Baltimore, Md.	97
243	Baltimore Medical College, 1903, Baltimore, Md.	93 5-9
231	Western Reserve University, 1903, Cleveland, O.	91
232	Western Reserve University, 1903, Cleveland, O.	91 7-9
234	Western Reserve University, 1903, Cleveland, O.	94 5-9
235	Western Reserve University, 1903, Cleveland, O.	85 7-9
242	Medico-Chirurgical College, 1903, Philadelphia, Pa.	96 4-9
245	Women's M. C. of Pennsylvania, 1903, Philadelphia, Pa.	80 8-9
248	Hahnemann M. C. and Hosp., 1903, Philadelphia, Pa.	89
250	University of Maryland, 1903, Baltimore, Md.	94 6-9
251	Hahnemann Med. College, 1903, Philadelphia, Pa.	87
252	Kentucky School of Medicine, 1903, Louisville, Ky.	Failure
255	American School of Osteopathy, 1903, Kirksville, Mo.	84
256	American School of Osteopathy, 1903, Kirksville, Mo.	87 1-2
257	American School of Osteopathy, 1903, Kirksville, Mo.	90 3-4
259	American School of Osteopathy, 1903, Kirksville, Mo.	89 3-4
258	Still College of Osteopathy, 1903, Des Moines, Ia.	90
260	American College of Ost., M. and S., 1902, Chicago, Ill.	82
261	Southern School of Osteopathy, 1903, Franklin, Ky.	91 3-4

OHIO STATE EXAMINATION QUESTIONS.

The Ohio State Board of Medical Registration and Examination held an examination, June 23-25, at Columbus, Ohio. According to the *Cincinnati Lancet Clinic*, the following are the questions submitted. There were ninety-two applicants, of whom eight failed to pass. Seventy-five per cent. was the passing grade.

Anatomy—1. Describe the clavicle and scapula. 2. Describe the sacrum and coccyx. 3. Describe and illustrate the different classes of articulations. 4. Describe the hip joint, its ligaments and its synovial membrane. 5. Name and give origin of the muscles of the posterior tibial region (superficial group). 6. Name and give origin of the muscle of the anterior scapular region. 7. Give the origin and distribution of the ulnar artery. 8. Describe the deep veins of the lower extremity. 9. Describe the cecum. 10. Describe the pleura.

Physical Diagnosis—1. Give the signs of aortic valvular obstruction, with hypertrophy of the left ventricle. 2. How determine whether a cardiac murmur occurs with the first or second sound of the heart? 3. Differentiate between a pleuritic and a pericardial friction sound. 4. Differentiate between a pericardial effusion and a pleural effusion on the left side. 5. By what signs may ascites arising from disease of the kidneys be distinguished from that due to disease of the heart or liver? 6. Differentiate paralysis of the facial nerve due to a central lesion from one due to a peripheral lesion. 7. Make a differential diagnosis of tumor of the right kidney from tumor of the liver. 8. What would you elicit in an examination of the chest of a patient with advanced phthisis? 9. What are the signs of a dilated stomach? 10. Give the normal boundaries of the liver.

Chemistry—1. Define chemical incompatibility and give example. 2. Give chemical formula of three acids. 3. Describe "K" and its principal salts. 4. How is a salt formed? 5. Describe "Na" and its principal salts. 6. Differentiate organic and inorganic chemistry and give an example of each. 7. Explain the difference between a carbonate and a bicarbonate. 8. Give formulas and describe calomel and bichloride. 9. Give tests for acids and alkalies. 10. Give tests for arsenic.

Materia Medica—1. Creosote—from what is it obtained? What is its physiological action? 2. What are the indications for creosote, its doses, and how is it administered? 3. Ipecac—physiological action, indications and doses. 4. Chloral hydrate—physiological action, indications and doses. 5. Phenacetine—physiological action, indications, doses and uses. 6. Oxygen—in what condition and how is it used? 7. Serum therapy—upon what scientific principle is it based? 8. Antidiphtheritic serum—how is it obtained and how used? 9. Anesthetics—mention those most generally used, and what are the dangers attending their use? 10. Local anesthesia—how is it produced?

Physiology—1. In what do physiology and pathology differ? 2. How are the functions of the body classified? 3. Define the digestive process. 4. Describe the portal circulation. 5. What is chyle and how does it differ from lymph? 6. What is the coloring matter of the blood and its function? 7. How does the pneumogastric nerve influence the heart beat? 8. How is the temperature of the body kept at the standard? 9. What are the functions of the skin? 10. State the functions of the first two cranial nerves.

Obstetrics—1. Define natural labor. 2. What precautions should be taken before and during the first examination in labor? 3. How would you manage a case of prolapsed cord? 4. What is dry labor and what are its difficulties and dangers? 5. How would you diagnose and manage a case of placenta previa? 6. Under what circumstances would you use a douche after labor or during the lying-in? 7. Define and describe involution. 8. What are some of the causes of mastitis? How should it be treated? 9. When should the cord be cut, and how dressed? Describe the process. 10. What should be done with a child prematurely born?

Surgery—1. Describe the application of the plaster-of-paris jacket. 2. How should fracture of the olecranon be treated? 3. Give causes and symptoms of adenitis. 4. What is saline transfusion and how is it performed? 5. What is asepsis and how would you secure it? 6. Describe the Trendelenberg position and its uses. 7. How would you treat a penetrating gunshot wound of the abdomen? 8. How is suprapubic lithotomy performed? 9. What is the difference between true and false ankylosis? 10. What do you understand by intubation, and under what circumstances is it of use?

Gynecology—1. Give symptoms, diagnosis, prognosis and treatment of acute metritis. 2. What is chronic endometritis, its causes and treatment? 3. Give etiology, symptoms and diagnosis of carcinoma uteri. 4. Give differential diagnosis of abdominal ascites and large ovarian cysts. 5. Give palliative treatment of retroversion of uterus.

Diseases of Children—1. Differentiate between varicella and smallpox. 2. Give the technique of vaccination. 3. Differentiate entero-colitis from cholera infantum. 4. Differentiate catarrhal from lobar pneumonia. 5. Symptoms of hydrocephalus.

Practice and Pathology—1. Give four causes of a persistent polyuria, and the results of a urinary examination. 2. Differentiate between gastralgia, gastric ulcer and gastric carcinoma. 3. Outline management of a case of organic cardiac lesion, with lost or broken compensation. 4. Describe the lesion and location in tabes dorsalis, and the signs by which the disease may be recognized. 5. What is ascites? Give causes, differential diagnosis and treatment. 6. What is cystitis? Give symptoms, diagnosis and treatment. 7. How diagnose and treat a case of diphtheria? 8. What does the word dysentery mean? Give symptoms and diagnosis of a case? 9. What do you understand by the terms symptoms, signs and periods of incubation and prodromes of disease? 10. Define erysipelas. Describe its course and give indications for three remedies.

TETANUS FROM FOURTH OF JULY INJURIES.

There seemed to be during the last two months an unusual number of cases of tetanus, but since the Fourth of July there has been an epidemic of this disease throughout the country, resulting from injuries inflicted in the celebration of our national holiday. Daily the secular press gives numerous accounts of deaths, not alone in Ohio, but throughout the entire country. One death, at least, has occurred in this city. According to the daily papers, on the twelfth day after the Fourth, seven deaths had occurred in Cleveland, seven in Toledo, five in Cincinnati, three in Marion, two at Circleville, and one each at Sandusky, Ashtabula, and Dayton. This list is not complete as no effort has been made to collect statistics. These are cases which have come to our notice by casual reading of the daily papers.

According to the Columbus Citizen: "The reported fatalities total some two score. The unreported ones are probably as great, so that the death of nearly 100 innocents is directly attributable to a fiendish combination of fulminate and dynamite, prepared in theory to commemorate a patriotic natal day, but which in practice commits murders of unspeakable horror and plunges hundreds of households into inconsolable sorrow. That such a vast number of violent, painful and inexcusable deaths do not excite special wonder and arouse universal condemnation, reflects upon the humanitarian spirit of the times and bespeaks a callousness that ought to excite the marvel, even of this commercial and utilitarian age."

The Citizen well says: "It ought to call forth the united protest of the press, so clear, so direct, so convincing, that this dreadful traffic in innocent young life will be effectively suppressed."

It is evident we can do little in the way of prevention except to warn the public of the dangers incident to Fourth of July fireworks, and especially the dangers from apparently trivial wounds inflicted by toy pistols and fulminating caps. It has been found that these caps and blank cartridges contain the tetanus bacillus which multiplies rapidly in small penetrating wounds protected as it is from the air.

The case which resulted fatally here was that of a man fifty years of age, who received a very slight scratch in the palm of his hand, not by the explosion of the cartridge, but simply from handling a toy pistol and a piece of cartridge; notwithstanding the wound was freely opened at the earliest possible moment and thoroughly cleansed with antiseptic solutions, tetanus developed on the eighth day and death resulted on the tenth. The medical profession should enter a strong protest against the manufacture and sale of all dangerous explosives, and especially against all forms of toy pistols and cartridges intended for the use of children.

With so many cases of tetanus from causes which are readily determined, instructive data could be secured if the physicians who have treated cases of tenanus resulting from the use of explosives on the Fourth of July, would report their cases, time of incubation, character of wound, age of patient, treatment and results. Reports of such cases would be particularly valuable in determining the period of incubation and the value of the treatment with antitetanic serum. It is only the fatal cases that have been reported in the daily papers. The cases that recovered, including treatment, would be more helpful to medical science.

The writer would be glad to receive brief reports from physicians who have treated cases of tetanus resulting from injuries received in connection with the recent Fourth of July celebration. Those of our readers who will be kind enough to furnish us such reports will please include, age of patient, character of wound, period of incubations, early and late treatment in detail, both medical and surgical, and results. Due credit will be given in a summary of these reports.

NON-SECTARIAN MEDICINE.

Sectarianism in medicine is founded in selfishness and commercialism. It is sadly out of harmony with science and results in wasted energy, dissociation and retarded progress in art. It is a stumbling block to the science and art of medicine.

The goal of medical science is truth, and the application of truth to the prevention and cure of disease. But truth is not divisible into schools, and its application to the cure of disease should not be made the basis of sects. To the physician all known truth should be available, all plausible theories should be his to prove. No dogma should fetter his choices, no school should select his remedies, no sect determine his methods.

It is this realization that sectarianism is restrictive rather than helpful, that it divides and weakens, where union and strength are needed, that has made the great majority of physicians in all ages desire a united profession. They have sought to avoid the use of any term that would imply a school or sect. Allopathy is an erroneous designation given to the regular system of medicine and surgery, not by those to whom it is supposed to apply, but by others as an anonym to the term they selected for themselves.

The right to select remedies and methods with absolute freedom is so generally recognized by all the so-called schools that sects are sects now only in name. Surgery is alike in all; dietetics and nursing know no schools. Homeopathy no longer pretends to administer infinitesimal doses of inversely potentialized medicines, expecting them to produce symptoms like those of the disease treated; eclectics no longer assume to have a monopoly of wisdom in the selection of therapeutic remedies, and physiomedicals can boast of no useful information that may not be known by all. Then why should we not have a united profession? Many believe that we may have an undivided profession and have declared in favor of union by the simple abandonment of sectarian names. These designations have lost their original meaning, and are retained presumably for some supposed advantage in the proclamation which they make to the public. The constitution of the reorganized state and county societies wisely provides that any reputable physician who will agree to practice non-sectarian medicine shall be eligible to membership in these societies and thereby in the American Medical Association. This has raised the question as to what is implied in the practice of non-sectarian medicine. It is the practice of medicine and surgery without proclaiming to the public that such practice is based upon any exclusive method or system. Truth as one sees it is to be the light, judgment as now to be the guide. The only restriction being that one is to refrain from using a sectarian designation which at best serves only to hold out a claim to the public that one has some remedy or method not possessed by our confreres. Not that we must change our methods of practice, but that we are to refrain from advertising them. The following statement expresses the meaning: "No physician who indicates to the public that his practice is based on a sectarian system of medicine shall be entitled to professional fellowshp or recognition in medical bodies."

And what physician who has in that honored title a claim on all medical knowledge, and freedom of all methods, could desire a circumscribing designation which would give him at best only an undue advantage over his professional brother?

If a physician is not to indicate to the public that his practice is based on a sectarian system, he should cancel sectarian names from his sign and from the title of his medical societies, for they can serve no good purpose there, and are certain to mislead the public.

FORMULATING SCHEDULE OF MEDICAL INSTRUCTION.

In pursuance of the recommendation of the National Confederation of the State Medical Examining and Licensing Boards, the Ohio Board of Medical Registration and Examination held a meeting July 7th, for the purpose of formulating a schedule of instruction for each year of the medical course, in harmony with the standard curriculum adopted at the New Orleans meeting. Representatives of the medical colleges of the state were invited to meet with the Board to confer in reference to a uniform curriculum. The following colleges sent representatives: Western Reserve University, Medical Department, Cleveland Homeopathic Medical College, Toledo Medical College, Pulte Medical College, Ohio Medical University.

The following committee was appointed to formulate a report and minimum standard curriculum, with a scheme of instruction for each year of the course: Dr. E. J. Wilson, to confer with representative of Columbus schools; Dr. A. Ravogli, with those of Cincinnati; Dr. H. H. Baxter, with those of Cleveland; Dr. L. F. Towers, with those of Toledo.

We believe such a curriculum will result in greatly improving the instruction in the medical colleges, and in uniformly elevating educational standards throughout the country.

In Memoriam.

DR. ALONZO BLAIR RICHARDSON.

Dr. A. B. Richardson, Superintendent of the National Hospital for the Insane, died of apoplexy in Washington, D. C., June 28, 1903.

Dr. Richardson was born in Scioto County, Ohio, September 11, 1852. He was educated in the public schools of Portsmouth, at Ohio University, Athens, and Ohio Wesley University at Delaware. He received his medical education at the Medical College of Ohio, Cincinnati, and Bellevue Hospital Medical College, New York, from the latter of which he was graduated in 1876.

His professional life was largely devoted to institutional work. Soon after graduation he was appointed assistant physician at the Athens State Hospital, where he served for two years, resigning to engage in private practice in Portsmouth. In 1881 he was appointed Superintendent of the above institution.

After a successful administration of nine years he resigned this position to engage in practice in Cincinnati, making a specialty of nervous diseases. In 1892, Dr. Richardson was called to the superintendency of the Columbus State Hospital, and six years later was placed in charge of the Massillon Hospital. While in Columbus Dr. Richardson was Professor of Mental and Nervous Diseases in Starling Medical College and the Ohio Medical University. His clinical lectures on psyochiatry to the students of these institutions were attended by many members of the local profession.

In 1900 he was appointed, at the suggestion of President McKinley, Superintendent of the National Hospital for Insane at Washington, D. C., which "position he filled most successfully to the time of his death." He was a member of the Ohio State Medical Society, the American Medical Association, President-elect of the American Medico-Psychological Association, and a former President of the Columbus Academy of Medicine. He was a frequent contributor to current medical literature and an authority on mental diseases and the care of the insane.

The following resolutions, prepared by Drs. Dickson L. Moore, C. S. Hamilton and W. D. Deuschle, committee, were adopted by the Columbus Academy of Medicine, June 30.

"In view of the untimely death of our distinguished professional brother, be it

Resolved, By the Columbus Academy of Medicine, in special session assembled, that in the death of Dr. Richardson the entire medical profession has sustained a distinct loss. In the social relations of life he was the gentleman, courteous, considerate and kindly at all times. In his professional life his ideals and attainments were the highest.

He was a diligent student of all varying forms of aberration of the mental and nervous conditions of humanity, and was the helpful and faithful friend of many thousands of his unfortunate fellow-beings. He spent his time and energy lavishly to better the condition of the insane class, and the recognition of his ability by the national government was in every sense deserved.

His life was filled with constant and intelligent work, which won the respect of his day and generation, the love and affection of all who knew him well.

We testify to our great loss as a profession, and we offer our deepest love and sympathy to his family. We desire that this permanent testimonial be engrossed in the minutes of this Academy by the Secretary, and that a copy be transmitted to the wife, whose love and sympathetic helpfulness were always such a great element and high incentive in his life."

The funeral services were held at the Broad Street M. E. Church, where the family worshiped while in this city. Dr. W. H. Scott of O. S. U., a life-long friend of the deceased, and Dr. B. L. McElroy, the pastor of the church, officiated. The services were very impressive, and the attendance showed the high esteem in which the deceased was held by his many friends.

The active pallbearers were superintendents of State hospitals, as follows: Dr. A. B. Howard, Cleveland; Dr. H. C. Eyman, Cleveland; Dr. George Stockton, Columbus; Dr. E. H. Rorick, Athens; Dr. H. A. Toby, Toledo, and Dr. A. F. Shepard, Dayton.

REMARKS ON THE DEATH OF DR. RICHARDSON BEFORE COLUMBUS (OHIO), ACADEMY OF MEDICINE, JUNE 30, 1903.

BY H. C. RUTTER, M. D.

It seems fitting upon this melancholy occasion that some words be spoken in addition to the formal resolutions which have so well conveyed to the world the esteem in which Dr. Richardson was held by this Academy.

Having for a time sustained a very intimate relationship with Dr. Richardson, I feel that I should embrace this opportunity to add my individual mite to the great mass of testimony showing his worth as a man, and value to the world as a physician and executive officer, both in making provisions for the care of the insane and their treatment.

For a time we were associated together in the management of the Athens Hospital for the Insane, sustaining the relationship of Superintendent and assistant physician. We lived in the same house, ate at the same table, enjoyed the same recreations and social pleasures, and largely shared the same responsibilities of management. It was an epoch, marked in the history of asylum management in this country, and the forerunner of the present liberal treatment of the insane. There, for the first time, all mechanical devices for restraining the insane were thrown aside and Dr. Richardson, although then an assistant, was one of the most valuable aids in the successful accomplishment of that system which is now almost universally adhered to. When I left Athens to assume charge of the Columbus Hospital for the Insane, Dr. Richardson succeeded me as Superintendent, and after an interval of some years again followed me as Superintendent of Columbus Hospital. It is but natural therefore that I should have watched his career with much more than ordinary interest and so become quite familiar with his social and professional character. I have also met him frequently in the courts as a medical witness, sometimes on the same side but frequently opposed to him. Perhaps no better idea of a man's character can anywhere be more clearly obtained than in a court room, when he is subjected to a long and shrewd cross-examination by a brilliant attorney. It displays the strong and weak points of his character fully.

I do not know a word which so fittingly describes his mental, moral and physical character as the word "sturdy." He was strong, forceful and determined. No lawyer could shake him out of the position he had assumed or cause him to waver a hair's breadth from an opinion he had expressed. He was physically strong and his physical strength seemed in exact proportion to his mental and moral vigor. This purposeful power he brought into action in everything he attempted. No matter how trivial the employment might be he exhibited the same earnestness of purpose and the same determination to succeed that was so conspicuously marked in his professional career. The deep-set eye, the wrinkled brow, the thoughtful, serious expression of his face, marked him in all things as an intense, earnest, determined man. He had a very convivial nature too and enjoyed wit and humor to the very fullest extent, but even his sunniest smiles and loudest laughter never quite obliterated the earnest, thoughtful expression. He had exactly the same wrinkles of forehead and the same depth of orbits which so characteristically mark the pictures of Darwin and many other of our deepest thinkers.

His medical attainments were well known to you. You honored him as highly as it was possible for you to honor any man by calling on him to preside over your deliberations, thus putting the stamp of your approval on his character and professional attainments.

As an executive officer he displayed rare judgment and here his firmness of character and earnestness of purpose were exhibited to the best advantage. His conscientious fidelity to duty, combined with an intelligent energy in the discharge of duty, and unswerving honesty, won for him the absolute confidence of his official superiors and the respect and admiration of the public.

To him more than all others combined is the State indebted for the new and magnificent hospital at Massillon. While yet Superintendent of the Columbus State Hospital he planned and supervised the erection of the buildings at Massillon, in the capacity of trustee, and when it was ready for occupancy organized, furnished and opened it as Superintendent. His experience therefore extended over the entire range of hospital construction and hospital care for the insane. It reached from the foundation stone through the planning and building period, embracing plumbing, draining, heating, fitting, furnishing, opening, organizing and finally superintending the finished work. It is little wonder then that President McKinley, perfectly familiar with his universal knowledge of the subject, and with his strong, earnest and honest character, should have favored his selection to fill the vacancy of Superintendent of Government Hospital at Washington.

That so strong a man should have been stricken with apoplexy at the early age of fifty-one, especially without any premonitory symptoms, adds to the depression felt by his friends, and their sorrow is still further augmented by the thought that his career of usefulness was but fairly entered upon. Complimented a few weeks ago by an election as President of the Association formed by his brother superintendents of North America, and but recently called upon to inaugurate a new era in the history of the most prominent, because it is the only national hospital for the insane in the United States, he was but crossing the threshold of his national career, or, so to speak, entering upon the second chapter of his life, the first chapter of which was finished when he left Ohio and pages of which are filled with an uninterrupted series of successes. All in all, he was a strong, active man, a model husband, and affectionate father, a staunch friend and useful citizen, and whether the State forgets his services or not, he will continue to live in the deeds he has done and the good works he has accomplished.

Medical News Notes.

Dr. W. D. Hamilton is at Sagaponeck, L. I.

Dr. and Mrs. F. S. Wagenhals have returned from Atlantic City.

Dr. C. S. Means is on a western tour, stopping in Colorado and California.

Dr. Jacob A. Stout has been appointed physician to the Franklin County Children's Home.

Dr. Reuben M. Bonar, for the past five years surgeon in the U. S. Army in the Philippines and Hawaii, visited the editor and other friends in the city recently.

Philadelphia Hospital is to have eight pavilions of steel and glass for the treatment of consumptives. The contract for construction at a cost of $125,000 has been awarded.

At the June meeting of the Richland County Medical Society the following officers were elected: President, M. T. Love, of Shelby; Vice-President, F. E. Findley; Secretary, Lillian McBride, of Mansfield; Treasurer, Emma Millikin, of Ontario.

Dr. T. W. Rankin, Councilor for this district, aided in the organization of a county medical society in Fairfield County in June. The following officers were elected: Dr. Goss, President; Dr. Beery, Secretary, and Dr. Samuel Renshaw, of Sugar Grove, Treasurer.

AMERICAN ACADEMY OF MEDICINE.—At the meeting held in Washington, D. C., May 11 and 12, the following officers were elected for the ensuing year: President, Dr. John B. Roberts, of Philadelphia; Vice-Presidents, Drs. T. B. Davis, of Pittsburg; J. H. McBride, of Pasadena, Cal.; J. P. Searcy, of Tuscaloosa, Ala., and S. A. Knopf, of New York; Secretary, Dr. Charles McIntire, of Easton, Pa.; Assistant Secretary, Dr. A. R. Craig, of Columbia, Pa.; Treasurer, Dr. E. A. Green, of Easton, Pa. The next meeting will be held at Atlantic City, N. J., June 11 to 13, 1904.

Recent Medical Books.

NOTHNAGEL'S ENCYCLOPEDIA OF PRACTICAL MEDICINE FOR DIPHTHERIA. By William P. Northrup, M. D., Professor of Pediatrics in the University and Bellevue Hospital Medical College, New York; Attending Physician to the Foundling, Willard Parker, and Presbyterian Hospitals, New York; and Measles, Scarlatina and German Measles by Theodor von Jürgensen, M. D., Professor of Medicine at the University of Tubingen. Under the editorial supervision of Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Published by W. B. Saunders & Co., Philadelphia and London.

The series of monographs issued under the editorship of Professor Nothnagel are one of the best the medical profession has had presented for years past.

Diphtheria is so thoroughly and minutely discussed by Professor Northrup that we have not lost anything by substituting his article for the original. This volume is truly a storehouse of all that is modern. Everything that is of interest and of profit to a practitioner has been included in the exhaustive and thoroughly up-to-date work. No physician who wishes to keep apace of medical progress can do without this volume. D.

A TEXT-BOOK OF PRACTICAL MEDICINE. For the use of Students and Practitioners. By William Gilman Thompson, M. D., Professor of Medicine in Cornell University Medical College, Physician to the Presbyterian Hospital, etc., New York. New (second) edition, thoroughly revised. In one octavo volume of 1104 pages, with 62 illustrations. Cloth, $5; leather, $6; half morocco, $6.50, net. Lea Brothers & Co., Philadelphia and New York.

In the original preparation of his work Dr. Thompson dwelt very extensively on Pathology. However, he has kept before his readers one cardinal principle, namely, that curative medicine is the rightful object of every practitioner. He has drawn very liberally from every contributing science, and given us information from his own rich experience of twenty years in private and hospital practice and in teaching, the author has devoted particular care to the therapeutical sections of his work, making his directions for treatment so clearly detailed and so precise that the volume furnishes the most useful presentation of modern applied medicine. The first edition has been exhausted in less than two years. This shows Thompson's Practice has been well received. The new edition has been revised with great care, and shows a considerable increase in size.

In order to prevent the recent progress in special lines, the author has found it necessary to rewrite entirely the articles upon Dysentery, Yellow Fever and Malaria as well as the sections on Immunization, Preventive Inoculation and Sero-Therapy. Special attention has been given to Functional Nervous Disorders. In addition to these major changes he has made changes on nearly every page, including additional suggestions as to treatment and new therapeutic formulæ which will prove of equal value to the young practitioner.

Every physician should have a copy of Dr. Thompson's Practical Medicine. D.

CUSHNY'S PHARMACOLOGY AND THERAPEUTICS. A Text-Book of Pharmacology and Therapeutics; or, the Action of Drugs in Health and Disease. By Arthur R. Cushny, A. M., M. D., Professor of Materia Medica and Therapeutics, University of Michigan, Department of Medicine and Surgery, Ann Arbor, Mich. Third edition, revised and enlarged. In one handsome octavo volume of 750 pages, with 52 engravings. Cloth,

$3.75, net; leather, $4.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

Since the last edition of this work there has been some important advances made in pharmacology, and the author has made these changes and brought them up to date. The most interesting of these, viz., determination of food value of alcohol, which has been treated in more detail than in former editions. The increasing use of cocaine as a local anesthetic and the introduction of the subarachnoid method of medication has been given in the chapter on cocaine and much more space has been devoted to the adrenal gland. Other minor changes have been made to bring the text up to date and several illustrations have been added. The book has extended to it a hearty welcome, showing an encouraging sign of the tendencies of modern medicine which explains the reason for drug action, and to offer a connected and rational body of knowledge concerning therapeutics. D.

A MANUAL OF SPECIAL TREATMENT. By W. Watson Cheyne, M. B., F. R. C. S., F. R. S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc., and F. F. Burghard, M. D., and M. S. (Lond.) F. R. C. S., Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. Complete work now ready. In seven imperial octavo volumes, with illustrations. Volume VII, 595 pages, with 113 illustrations, cloth, $5.75, net. Lea Brothers & Co., Philadelphia and New York, 1903.

This volume completes the most practical work on Surgery that has ever been written. It is a work which no physician can do without, be he surgeon, specialist or general practitioner. It is devoted exclusively to treatment, and space is therefore found for precise descriptions of every detail necessary to success, including preparation, operation and after-treatment. The authors, who by reason of their long and varied experience and faithful study, are entitled to the fullest confidence, give unreservedly of their knowledge, and, moreover, every phase of their great subject is treated with such attention to details, and in terms of such clearness, that if their instructions are followed the most satisfactory results possible must be attained.

The complete work comprises about 3000 pages with nearly 1000 illustrations, and for greater convenience is bound in seven handy volumes.

The present volume is devoted to the treatment of the Surgical Affections of the Rectum, Liver, Pancreas and Spine, the Genito-Urinary Organs, the Breast and the Thorax. M.

SURGICAL ASEPSIS. Especially adapted to operation in the home of the patient. By Henry B. Palmer, M. D., Consulting Surgeon to the Central Maine General Hospital. Ninety illustrations. Pages vi—231. Size, large 12mo. Extra cloth. Price, $1.25, net, delivered. Philadelphia, F. A. Davis Company, Publishers, No. 1914-16 Cherry Street.

The author maintains that if the home be a good one and if the same degree of surgical skill and nursing can be secured, the home treatment of surgical cases offers some very decided advantages over the hospital. The home environments, the greater degree of quiet which may be secured, and the knowledge of the patient that he is among his friends and under the care of his family physician are great aids toward securing that quietude of mind which will hasten the recovery. He further mentions that the patient is usually anxious to leave the hospital and often returns to his home sooner than it is advisable that he should travel. This risk can be obviated by operating at home. Those surgeons who often operate outside of the hospital will find this book valuable aid. M.

A TEXT-BOOK OF CHEMISTRY. For Students of Medicine, Pharmacy and Dentistry. By Edward Curtis Hill, M. S., M. D.; Medical Analyst and Microscopist; Professor of Chemistry and Metallurgy in the Colorado College of Dental Surgery; Professor of Surgery and Toxicology in the Denver and Gross College of Medicine, University of Denver. With 78 illustrations, including 9 full page half-tone colored plates. Pages, xii-523. Crown octavo. Extra cloth, $3, net, delivered. Philadelphia, F. A. Davis Company, Publishers, 1914-16 Cherry Street.

Students and teachers will find this volume a valuable textbook. It is built up mainly from lectures delivered in the last ten years in medical and dental schools. The author has tried to make facts clear and simple, and has utilized topic generalizations as much as practical. The free use of formulas in the text is intended to familiarize students with chemic nomenclature and notation. M.

ZAPFFE'S BACTERIOLOGY. A Manual of Bacteriology for Students and Physicians. By Fred C. Zapffe, M. D., Professor of Histology in the College of Physicians and Surgeons, and Professor of Pathology, Bacteriology and Hygiene in the Illinois Medical College, Chicago. In one 12mo volume of 350 pages, with 150 engravings and 7 full-page colored plates.

Cloth, $1.50, net; flexible leather, $2, net. Lea's Series of Pocket Text-Books, edited by Bern B. Gallaudet, M. D.

Professor Zapffe's compendious manual covers the theoretical and clinical aspects of Bacteriology in a manner answering the needs of general practitioners as well as of students. He accomplishes this by eliminating unnecessary discussions. Starting at the very beginning he carries his reader systematically up to the point of gaining a full and comprehensive view, not only of Bacteriology, but also of its practical relation to medicine. The whole trend of the book is distinctly clinical—the proper object for a work designed to be of service to medical students and graduates. A course of practical laboratory exercises is likewise included in this singular comprehensive volume. M.

DISEASES OF THE SKIN. A Manual for Students and Practitioners. By Jos. Grindon, Ph. B., M. D., Professor of Clinical Dermatology and Syphilis, Washington University; Dermatologist to the O'Fallon Dispensary; St. Louis Mullanphy Hospital; St. Luke's Hospital and the Missouri Baptist Sanitarium; formerly Physician to the Smallpox Hospital, St. Louis; Member of the American Dermatological Association; ex-President of the St. Louis Medical Society and of the Association of City Hospital Alumni, St. Louis.

Like the other volumes of its series, this work gives a very complete and comprehensive presentation of the subjects according to the latest developments.

The author has a good classification and has described each class thoroughly, especially in pathology and treatment. The author has had extensive advantages in hospital and private practice and has been a clever student. He has also drawn from the leading dermatologists of the country and given us a carefully compiled work on the subject of skin disease. Every practitioner should have a copy of the work. D.

THE EXPECTANT MOTHER. A Treatise on the Care of the Expectant Mother During Pregnancy and Child-Birth, and the Care of the Child from Birth to Puberty. By W. Lewis Howe, M. D. Pages, viii-63. Size, small 12mo. Extra cloth.. Price, 50 cents, net. Philadelphia, F. A. Davis Company, Publishers, No. 1914-16 Cherry Street.

This is a practical and useful manual for the mother and nurse. The author states the normal conditions as they should exist and slight illnesses which may arise during the period of pregnancy and advises how to avoid same and when to consult a physician. M.

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THE EXTENSION OF INFECTION IN OTITIC SUPPURATION.*

BY JOHN EDWIN BROWN, A. M., M. D.

Professor of Otology and Rhino-Laryngology, Ohio Medical University; Otologist and Laryngologist to Protestant Hospital, Columbus, O.

In acute suppuration of the middle ear there is always *some* involvement of the mastoid antrum. If by spontaneous or surgical perforation of the drum membrane drainage is not promptly established the infection may spread from the tympanic cavity and antrum so as to make not only a typical mastoid inflammotion but as to involve neighboring structures. In chronic suppuration of the middle ear caries is usually found present, affecting some portion of the walls of the tympanic and antral cavities. When such a case suffers from an acute exacerbation it is very easy for the infection to involve the mastoid, and a pathway may have been opened up by the carious process in the bone whereby the infection spreads, if not at once, early in the recrudescence to the neighboring tissues. The variety of the infective organism may determine its activity and the tendency to involve more distant tissues. Thus the presence of the influenza bacillus, the streptococcus or staphylococcus having been demonstrated, we know that we have a virulent infection to deal with, and only by those measures laid down on surgical principles may we avoid serious results for the patient.

In the main, the physicians of the old school were taught that tenderness and swelling behind the ear indicated mastoid involvement; from which the inference was perhaps natural that without swelling there was absence of mastoid disease. Now it is an external periostitis or an accumulation of pus external to the mastoid cortex that causes this swelling. A study of the anatomical relation of these parts, as well as the more abundant experience of recent years, shows that in only a few cases do we have this external swelling at an early stage in the disease. And it is because there is still a widespread feeling among general practitioners that they can rest easy in regard to a case of middle ear suppuration with mastoid symptoms until there is this external swelling that this point should be strongly emphasized in all discussions of middle ear infection.

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* Read before the Columbus Academy of Medicine.

The mastoid antrum is reached by penetration of the external cortex at a depth of from five-eighths to three-fourths of an inch. Now the antrum is the gateway of infection in the mastoid process. A study of any preparation of the temporal bone will demonstrate that, wheareas the shortest distance from the antrum to the external surface is five-eighths of an inch, an extremely thin plate of bone, which in some cases is merely a wafer, separates the antrum from the floor of the middle fossa; while from the antrum to the lateral sinus in its groove in the posterior fossa the distance will be a quarter of an inch or less, and in no case more than half an inch. So far, therefore, as the physical character of the bone is concerned, resistance would seem to be less toward the middle fossa than anywhere else. When the infection spreads rapidly from the mastoid antrum into the pneumatic spaces of the process we may find an involvement of the large cells at the tip of the process almost coincident with the beginning of the infection in the antrum. These large cells in the tip have extremely thin walls in the posterior internal aspect so that at times we may have the pus breaking through the tip into the cervical tissues beneath and posterior to the sternocleidomastoid muscle.

The natural course of a suppurative mastoid inflammation after it once becomes fully developed, if not corrected by surgical procedure, is for the infection to spread beyond the limits of the process and infect neighboring structures. That this breaking through may be externally we have already mentioned, but this is not the only course nor is it the one most probable. If the pus finds its outlet towards the middle or posterior fossæ and there localizes itself, a circumscribed abscess between the dura and bone, we have extradural abscess together with a localized pachy-meningitis. When this path is posteriorly to the cerebellar fossa this extradural abscess may be persinuous, that is, between the bone and lateral sinus. In such case, or without the accumulation of pus between the sinus and bone, infection penetrates the walls of the sinus, causing phlebitic thrombosis. While the thrombosis in these cases is usually an infected one, we at times find the vessel occluded by what apparently is a simple non-infected thrombus, and in these cases the general septic symptoms are not manifested as in the cases where the clot is found to show the presence of the bacteria which are prevalent in the mastoid pus. Should the dura not act as a barrier to the infection, we have an infection of the meninges, causing serous or purulent leptomeningitis. The infection may localize itself after passing through the dura and we may have that condition known as subdural abscess, in which there is a localized abscess cavity between the dura and brain tissue or, what is more commonly found, an abscess cavity in the brain tissue itself.

The preparation of this paper was undertaken largely for my own satisfaction to study the relative frequency of these several lesions in otitic suppuration and their outcome. We often hear it said by physicians of large experience that they have never seen these grave cases of ear disease which the otological surgeons are so much discussing today. They do exist, however, and the probabilities are that, aside from the increased number from influenza, as many existed formerly as now. But when we understand that, notwithstanding all this discussion, we frequently meet with cases of grave intracranial disease in which the otitic origin had not been recognized, it is only fair to presume that a decade or two ago many of these cases went on to a fatal result without even a shadow of suspicion of the real cause of the disease.

Medical literature, formerly very scant on this subject, has in the past few years teemed with reports of successful and unsuccessful operations in these cases, but it has only been in the last year or two that there has been accumulated enough data from which to make reliable comparisons as to the relative frequency of these lesions. The *Archives of Otology* has been publishing reports from Koerner's Rostock clinic of the cases of otogenous bone disease occurring in this service. From the beginning of the report, which goes back to November, 1896, there have been 53 cases, of which 25 were extradural abscesses; 18 of sinus phlebitis; 12 of purulent leptomeningitis; 1 of serous meningitis; and 2 of brain abscess (associated lesions having been present in 5 cases). The jugular was ligated three times. The late Dr. Pyle presented compilations of 100 cases of mastoid disease in Whiting's clinic at the New York Eye and Ear Infirmary. These 100 cases showed 33 per cent. of intracranial complications, of which 22 were extradural abscesses; 5 of sinus thrombosis; and 2 of brain abscess. The preponderance of cases of extradural abscess (and these more often located in the middle fossa) is what we would expect from our anatomical and pathological inquiries.

Referring to the prognosis in these lesions we find that it corresponds with what our knowledge of their pathology would cause us to infer. Without surgical intervention, in the absence of a unique or unusual course, the prognosis would be uniformly fatal. We can see no reason why, if an extradural abscess is evacuated, the case should not go on to recovery. In sinus thrombosis the result depends on the early opening up of the diseased area and cutting off of the infection from the general circulation to prevent pyemia. With septic meningitis one can see how futile any effort would be to secure a favorable termination; while in brain abscess the condition is always grave, but not without hopes of recovery. Of Koerner's cases, 24 of the 25 cases of extradural abscess made recoveries. Inasmuch as in the remaining case there was associated purulent meningitis, it can be said that he had 100 per cent. of recoveries with this complication. Of the cases of sinus thrombosis, 16 cases involved the lateral sinus, in which there were 6 deaths. Two of these fatal cases had associated purulent leptomeningitis, and in another there was thrombosis of the jugular and marked pyemic symptoms. In one case of phlebitis of the petrosal sinus there was death, and in another of the cavernous sinus there was recovery. The 12 cases showing purulent leptomeningitis all resulted in death. A case of serous ventricular meningitis was likewise fatal. There was one fatal case of general pyemia after mastoid inflammation following measles. There were two cases of brain abscess, one of the cerebellum in which likewise there was extradural abscess, and another of the cerebrum. Both cases recovered. Pyle's report of Whiting's cases gave recovery in the 22 cases of extradural abscess. In the cases of sinus thrombosis there were three recoveries and two deaths. Of the two cases of brain abscess one recovered and one died. Speaking of the fatal aspect of the cases of otitic meningitis, Cohn, of Breslau, has reported six cases, in one of which there was recovery. Macewen a number of years ago reported twelve cases with six recoveries, but these cases were not reported in detail, so that for statistical purposes one is unable to draw inferences from them.

As regards the symtomatology of these cases of intracranial lesions we must understand that, while in typical cases of these several lesions this is unmistakably plain, when mixed lesions are present we may be unable to foretell their presence, beyond recognition of the fact that we have grave complications. In many cases, however, we become aware of the complication only through operation. This is sepecially true of extradural abscess. Save for a general aggravation of the mastoid symptoms, increased pain, headache and irritability, there may be nothing by which the presence of the lesion is to be foretold. According to its location at the floor of the middle fossa or in the cerebellar fossa it may produce symptoms akin to disease of the cerebrum or cerebellum or to meningitis. In sinus thrombosis our symptoms are apt to come only when the system is beginning to suffer from general infection. There will be a chill followed bv marked rise in temperature and then great variations in temperature, sweating, furred tongue, and, in general, the picture of sepsis. With meningitis the symptoms in severe cases, or later in the disease, may be unmistakable headache, a moderately high temperature, a rapid, full and bounding pulse, irritability, restlessness, and, later, dullness, stupor and pressure symptoms. When there is suspicion of meningitis and yet the indications for operation are not plain enough, one should resort to lumbar puncture to see what results are obtained by an examination of the cerebrospinal fluid. In brain abscess the symptoms will depend upon the location of the lesion. When this is in the cerebrum, and when here it is usually in the temporosphenoidal lobe, we get a marked change in the patient's disposition, restlessness, mental stupor, apathy, and later lowering of the pulse rate and pressure symptoms. There may or may not be changes in the optic disc or paralyses of muscles. Aphasia is a symptom of note when present. When in the cerebellum, we get disturbance of gait, vomiting, paralysis of various muscles and delirium in addition to pressure symptoms. It must be constantly borne in mind, however, that these lesions are not always isolated, that is, we may have a certain amount of meningitis with the abscess, or there will be extradural abscess associated therewith, or even abscess in both cerebrum and cerebellum. It can be seen that while every case will show symptoms that are characteristic of the lesions present, often these will be masked by association. The recognition, however, of the presence of a grave complication is of the utmost importance, not only to determine the question of an operation, but also to decide what the extent of the procedure should be. Where symptoms have denoted grave intracranial disease and one opens the mastoid to find there insufficient lesions to account for the symptoms the duty is plain to extend the operation. Generally one will find the path over which the infection has gone where it has invaded intracranial structures, and in every case where the mastoid is opened it is the duty of the surgeon to follow up fistulous tracts wherever they may lead. But in some cases this path of infection cannot be found and in these cases one must determine the point against which operation will be carried by the symptoms which have been present in the case, entering the middle fossa from its floor or by trephining above the meatus, or entering the cerebellar fossa through, or by the sinus groove, or by a trephine opening two inches behind the meatus and a quarter of an inch below Reid's base line. One never knows in what cases of mastoid disease he is going to find these complications, for, in spite of the symptomatology outlined, we sometimes find on opening the process grave extensions where there have been practically no symptoms besides those of mastoid suppuration. The inference from these facts as to the extension of infection in otitic suppuration is plain. Where unmistakable mastoid inflammation is present and is severe or does not yield quickly to therapeutic measures, the process should be surgically opened and the infected area cleared out. When intracranial symptoms are found in connection with otitic suppuration, whether the ordinary indications of mastoiditis are obtrusive or not, operation should be performed promptly, as offering the patient the best chance for recovery.

My own experience has not been large enough to afford basis for conclusions, but I consider all cases of this kind worthy of report. This experience has, however, been in conformity with the statistics of Koerner and those of Whiting's clinic. I have had ten cases of mastoid diseases showing intracranial complications. Of these five were of extradural abscess, one of these being perisinuous; two of sinus thrombosis and three (one non-operative) of meningitis.

CASE I. Mrs. H., aged 47. Seen in consultation with Drs. Humphrey and Naylor. Illness had been of more than three weeks' duration. Began with fever, headache, vomiting, and later delirium. There was very trifling elevation of temperature, a rapid, full and bounding pulse. There had been a double suppuration of the middle ear and both canals were filled with fetid, cheesy pus. Although the patient was unconscious, reflexes indicated tenderness over the left mastoid. Operation to be limited to the mastoid process alone consented to. The process had undergone sclerosis and broken-down tissue was not found until the antrum was reached. The walls of this were carious and there was a perforation in the tympanic and antral roof leading into the middle fossa. No extradural accumulation of pus was found. The dura was granular over exposed area. The course of the disease was not changed by operative procedure and the patient died some two weeks later of symptoms indicating the last stages of meningitis.

CASE II. Mr. K., aged 60. Patient of Dr. Cooperrider. Was seen November 21, 1895. History of traumatism to right side of neck four and a half months before. For the last week indications of local inflammation in the cervical tissues. At this time nothing to indicate mastoid involvement. There never had been middle ear suppuration. December 20, again seen in consultation. A swelling had appeared over the mastoid process and an incision had evacuated pus but had not relieved general symptoms. Temperature was normal and pulse 80, but there had been considerable loss of flesh and strength and appetite poor. Acute tenderness over antrum and postero-superior wall of meatus drooping. On elevating and separating flaps, spontaneous perforation a quarter of an inch in diameter was found one inch behind meatus directly over sinus. This led into the sinus which on exposure was found to be filled with a firm, reddish-brown clot. Two fistulous tracts connected with the antrum which was filled with granulations. A considerable area of softened bone next to sinus was removed. Sinus itself was curetted as far as could be reached from the operation wound, but hemorrhage was not secured. In the absence of indications of sepsis further operation was not done. In the period of after-treatment pus discharged from the lower part of the sinus wound from a small extradural abscess. Condition continued good until January 13, when there was a sharp elevation of temperature and marked increase of pain referred to the occiput. Patient was again put on table. The wound was extended backward and lower flap raised for exploration and in the deep cervical tissues an abscess was encountered which discharged about two ounces of pus. It is uncertain whether this abscess was the result of the original injury or belonged to that type sometimes found late in cases of sinus thrombosis from infection along the course of the jugular. The case went on to recovery.

CASE III. Mr. G., aged 40. Convict at the Ohio Penitentiary. Mastoiditis had been diagnosticated some three days before and operation advised if symptoms did not promptly abate. Marked chill followed by a rise in temperature gave indications that operation was urgently indicated. On penetration of the cortex the interior of the process was found entirely broken down and cavity filled with pus. While curetting the debris there was a copious hemorrhage and it was found that the sinus had been perforated. Its wall was necrotic and the amount of hemorrhage indicated that there was a partial thrombosis. Hemorrhage was controlled by gauze compression and the operation completed hastily. At a later dressing the fractured tip of the process was removed with forceps and scissors. The patient's condition was critical for two days, when improvement set in and the case went on to normal recovery.

CASE IV. P. L., aged 35. Had been a sufferer from chronic suppuration of the right middle ear for many years. Was referred to me by Dr. S. B. Taylor. There was cholesteomatous suppuration. Impactions recurring after removal, patient underwent a radical operation October 4, 1900. There was a large accumulation of cholesteomatous material and pus in the hollowed-out mastoid process. The antral roof posteriorly was eroded and the dura pushed up by the accumulation of debris and pus. After completion of the bone operation the dural surface was rubbed to smooth the granulations. The case healed normally with no untoward symptoms.

CASE V. Miss M. G., aged 16. Was referred to me by Dr. D. N. Kinsman. In March, 1901, had an attack of influenza otitis, pain continuing about ear. I saw the case and enlarged a perforation of the drum membrane upward and backward to promote drainage. There was a copious amount of discharge and perforation would refill with granulations. May 12, instead of improvement, condition had remained about the same, and in the past week headache, malaise and prostration became marked and temperature went up to 101. At the operation the process was opened and the cells found filled with granulations streaked with pus. Following a fistulous track, perforation was found in the roof of the process leading into the middle fossa and an extradural abscess containing from one to two drachms of pus was found. The opening was enlarged to give free drainage to this and the case went on to normal recovery.

CASE VI. Mr. E. S., aged 23. Seen in consultation with his physician at Mt. Liberty. Six weeks before had acute suppurative middle ear trouble, which pain had not been relieved by discharge. There had been moderate elevation of temperature in the case from the beginning and accelerated pulse, and in the past ten days, vertigo, staggering gait, and some vomiting. There was paralysis of the right abducens. No optic neuritis. At the operation the process was found sclerosed and most of the cells obliterated, although there were streakings of pus throughout. The antrum was small and found with difficulty. A fistulous track was found leading from the posterior part of the antrum along the inner table into the cerebellar fossa beyond the limits of the temporal bone, and underneath the occipital bone and cerebellar fossa an extradural abscess containing half a drachm of pus was evacuated. The operation lasted two and a quarter hours and there was some collapse, from which, however, the patient rallied, and the case went on to recovery.

CASE VII. Miss M. H., aged 8. Patient of Dr. E. F. Wilson. Was seen March 23, 1902. Early in the winter had an acute suppurative otitis which ran a severe course and left the child irritable and peevish. There had been occasional rise of temperature and there was a profuse discharge with some bogginess of the meatal wall and mastoid tenderness with temperature between 100 and 101. Under the Leiter coil pain disappeared and temperature became normal. On the 28th symptoms returned and operation was made on the 29th. There was a complete involvement of the process, all the pneumatic spaces being filled with pus and the septa more or less broken down. The perforation in the roof of the process led to an abscess in the floor of the middle fossa the size of a hazelnut. The child was unusually excitable at the dressings throughout the entire period she was in the hospital, but the case went on to recovery.

CASE VIII. R. L., aged 6. Patient of Dr. C. A. Howell. In April there had been an acute suppurative inflammation of the right ear with mastoid symptoms. A paracentesis was made and under treatment the symptoms subsided. May 16, was again called, when temperature was found to be 101, pulse accelerated and the mastoid exquisitely tender. Operation May 18. The cells of the mastoid process were found full of granulations, but very little pus. Over the roof of the antrum was a small extradural abscess, the bone separating same from mastoid being carious. There were no untoward symptoms after operation.

CASE IX. Mr. A., aged 20. Was the son of a physician. Was called into the case by Dr. D. N. Kinsman. Patient had been a sufferer from childhood from a left middle ear suppuration. Two weeks before had severe otalgia for two days. Pain diminished as discharge appeared. Patient kept at his work and one week before played in ball game. The following day, when out with friends walking, his legs gave way under him and he had to be carried home. The past three days had been delirious. There was a full, bounding pulse and moderate elevation of temperature. Meatus was normal, but the membrane in its postero-superior portion was swollen. There was a moderate discharge. Pupils were normal and no paralysis and no optic neuritis. Operation April 12, 1902, at 8 p. m., revealed a sclerosed mastoid with streakings of pus throughout. The sinus was laid bare but found normal. The roof of the antrum and tympanum was removed, but no fistula found there. The patient's symptoms were not relieved by operation. The morning of the second day following the symptoms were all aggravated, the pupils widely dilated, and everything pointed to marked increase of intracranial pressure. The patient was again put upon the table and the sinus wound opened further and the dura explored in the posterior fossa with a negative result. Trephine opening was made in the middle fossa one and a quarter inches directly above meatus and the temporosphenoidal lobe of the brain explored. The bulging of the dura and cerebral tissue indicated marked increase of pressure. No abscess was found. Twelve hours after operation patient's symptoms had improved and for the period of an hour was said to be lucid. There was no continuous improvement and thirty-six hours after second operation death occurred. Postmortem revealed a purulent leptomeningitis, most marked at the base of brain and in cerebellar cavity. A bacteriological examination of the secretions in the case was not made.

CASE X. Was one seen in consultation, but was not operated upon. It was that of a child which had had a marked suppuration practically all its life. The child came home complaining of earache and for two days there was much suffering. The discharge from the ear had ceased at the beginning of earache. When I saw her she was moribund with the late symptoms of a cerebrospinal meningitis. Examination of the canal showed a perforation in the drum membrane and a slight discharge, but with no symptoms of an acute inflammatory process. Being assured of the diagnosis of meningitis and in the absence of localized symptoms in the mastoid, operation was not insisted upon. Death occurred twenty-four hours later.

In summing up these it will be seen that there were five cases of extradural abscess, one of these being perisinuous; two of sinus thrombosis, and three of meningitis. All of these made recovery save the three meningeal cases. It will thus be seen that the only fatal cases were those in the meningeal group, which surgeons have come to look upon as being uniformly in the fatal class.

WHAT THE MEDICAL PRACTICE ACT HAS ACCOMPLISHED FOR OHIO.*

BY S. B. M'GAVRAN, B. S., M. D., CADIZ, OHIO,

Member of the Ohio State Board of Medical Registration and Examination.

For years the central idea of this Confederation has been to establish a fuller and better system of medical education in the United States. The theories and views that have been expressed upon this floor have, for the most part, been adopted in the State of Ohio. I shall endeavor to give you a comprehensive summary of the physiological effects of the remedies that have been prescribed by this Confederation and are now incorporated in the Ohio law, and executed by the Ohio State Board of Medical Registration and Examination.

On February 27, 1896, a registration law was enacted by the General Assembly of Ohio, and amended April 14, 1900, providing for the examination of all applicants for registration.

In order that you may appreciate the benefits of the Medical Practice Acts of Ohio, permit me to say, that prior to the law of 1896, there was, in reality, no regulation of the practice of medicine in the State of Ohio.

Under the provisions of the law of 1868, to be a legal practitioner one must, in addition to being a person of good moral character, either, first, have attended two full courses of instruction and graduated at some school of medicine in the United States or foreign country; or second, produce his certificate of qualification from some state or county medical society; or third, have been continuously engaged in the practice of medicine for a period of ten years.

This law, for all practical purposes, was imperative. We had no referee to determine whether some school of medicine was genuine or fraudulent; whether some medical society really existed; or, whether a practitioner had engaged in the practice of medicine ten years or ten months.

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* Read at the National Confedertion of Examining and Licensing Boards, New Orleans, Louisiana, May 4, 1903.

The Medical Practice Act of 1896, provided for the appointment of a board of seven members for registration and examination. The board so appointed to be physicians in good standing and represent the different schools of practice in proportion to their strength relatively. No school to have a majority.

This board was appointed by the governor and met in Columbus on March 24, 1896, and organized and assumed the herculean task of carrying out the provisions of the new law. What the Medical Practice Act has accomplished in Ohio will, no doubt, be as fully answered and explained by giving you a brief history of the doings of the board under the guidance of the law.

Under the law the Ohio Board of Registration and Examination had, in short, these duties to perform:

First—To register physicians entitled to registry.

Second—To prescribe rules and regulations for applicants for registry.

Third—To determine what is a medical college in good standing.

Fourth—To prescribe rules and regulations as to standards of admission to medical colleges.

In order to carry out these provisions a copy of the law was sent to each physician of the state, enclosing with it a blank affidavit prepared by the board and a letter of instructions with the request that they comply with the law at once.

Many responded cheerfully and promptly. Others resented this peremptory challenge of their vested rights. They were not willing to remove their sacred sheepskin with all its glory of ribbon and seal from its hiding place to be gazed upon by the members of the board. They were told that their diploma must be verified. That the board must know that the diploma is genuine, and from a legally chartered medical college in good standing, as determined by the board, and that the person presenting the diploma must be the lawful possessor of the same, and that he must give his age, and the time spent in the study of medicine.

Again they urged that the law itself was bad enough, but they were hampered by the rules of the board that were unjust and oppressive. In irreverent tones they spoke of the "august body" and the "silly legislation," that it was a machine capable of being used as an engine of torture and oppression. Illustrations of this are not wanting and I can give you some astounding details showing the formidable opposition to the law coming from physicians themselves. Many of the legal practitioners also resisted the demands of the law. To require them to make an affidavit on blanks furnished by the board brought on an acute congestion of the Ego. They urged that medical legislation was not only needless, but actually harmful. By this time we had a raging storm of indignation all over the state. We could hardly tell whether the board was going to be blown up from within or from without. However, after repeated efforts on the part of the board, the tardy, indifferent and belligerent were finally compelled to present their diplomas for verification, and the legal practitioners furnished their affidavits duly attested stating the period during which and the places at which they had engaged in the practice of medicine or surgery. As a result 6701 certificates upon the basis of graduation were issued, and 119 applicants upon that basis were rejected. Six hundred and sixty-five certificates were issued upon the basis of ten years' practice, and 174 rejected, during the first year's work of the board.

The total number of certificates issued since the passage of the law is as follows:

To graduates	9,964
To legal practitioners	723
Total	10,687

REJECTIONS.

Graduates	223
Graduates, on examination	53
Legal practitioners	227
Total rejections	503

As a result of all this we have an official register of all the legally qualified physicians of the state, by counties, giving name, school, residence, date of state certificate, basis of issue and date of diploma.

"Previous to the passage of this law, a physician could claim graduation from any legally chartered school, and as there was no one to investigate his claim, such an impostor was very rarely found out. The registration law has compelled not less than five hundred so-called practitioners of medicine to give up the practice of medicine in the state, and during 1896, considerably more than that number left the State of Ohio, or discontinued practice without having made any attempt to register."

There has been a decided change in the opinion of the law by the physicians. Those that opposed it and had to be whipped in are now its most ardent supporters. It has had a stimulating effect upon all. In fact, the results along this line are the most gratifying. Common sense and common interest have silently and imperceptibly entirely removed the opposition. All this has been accomplished after an amount of dreary labor of which but few have any conception. To get the workings of the registration law in shape has been a hard fight. The board had to contend with the indifference of many good and capable physicians on the one hand, and the incompetent and unqualified practitioners and imposters on the other hand. But those days are over. The work has been done. Today discordant elements have been harmonized and our law is dealing efficient strokes upon the Empyric hosts, and nothing will hinder the routing the bulk of them out of the state.

The successful administration of the registration law prepared the way by educating the physicians, and helped to secure the passage of the present examination law.

MEDICAL COLLEGES.

Our law gives the board the unqualified right to determine what is a medical college in good standing. From this there is no appeal. The following are the main features of the resolutions adopted by the Ohio State Board of Registration and Examination on the requirements of medical colleges:

First—It shall exact the requirements for entrance prescribed by the Board of Medical Registration and Examination.

Second—It shall have an active and competent faculty, embracing the following departments, namely:

Anatomy, Physiology, Chemistry, Materia Medica, Therapeutics, Medicine, Surgery, Obstetrics, Histology, Pathology, Bacteriology, Opthalology, Gynecology, Larynology, Physical Diagnosis, Hygiene and State Medicine.

Third—It shall require an attendance of eighty per cent. upon each of the four graded courses of instruction of not less than twenty-six weeks each, excluding holidays, in four separate years.

Fourth—It shall exact an average grade of seventy-five per cent. on examination as a condition for graduation.

With all due respect to the medical colleges of Ohio, it will not, I think, be gainsaid by any that the following points were grave defects in the system of medical education:

First—The absence of a preliminary examination.

Second—The very short term of studies required.

Third—The want of personal training in the practical branches.

Fourth—The examination of candidates for the degree by those having a direct pecuniary interest in their success, and the degree conferred giving its possessor the right to practice medicine or surgery.

Fifth—A shortage in their equipments and facilities for teaching medicine.

Sixth—The not only defective, but damnable existence of three fraudulent medical colleges.

These defects have all been removed by the requirements of the law and the rules of the board. The reputable medical colleges of Ohio have more than doubled their equipments and facilities for teaching medicine; they have lengthened the course to four years; they have strictly adhered to entrance requirements of the board, and are on a par with the best medical schools of the United States.

One of the most gratifying results of the Ohio Medical Practice Act, was the prompt wiping out of existence of the American Eclectic, the Hygeia Medical and the American Health colleges of Cincinnati. These colleges were legally chartered and under the conditions existing in Ohio, prior to the passage of our law of 1896, a diploma from one of these crank schools counted for as much as a diploma from one of the best schools in the United States. These colleges had no equipments or facilities for teaching medicine. They were mere private corporations holding a charter from the State of Ohio, running in competition with the best equipped medical schools of the state, issuing diplomas to a class of graduates for a fee only, a disgrace to the profession, a direct blow at and injury to the honest practitioner and student who has worked hard to earn his well-merited degree. This class of medical colleges have not only infected Ohio with ignorant and incompetent practitioners, but their baleful influences have been carried to every state in the Union. I am proud to say that the Ohio Medical Practice Act has proven to be the best germacide for this paracide of our commonwealth that has ever been discovered.

PRELIMINARY EDUCATIONAL REQUIREMENTS.

Perhaps the greatest accomplishment of the Ohio Medical Law is that it requires a minimum standard for admission to medical colleges. Before the passage of this law the youth of Ohio could enter the medical school with a limited knowledge of orthography, writing, reading an darithmetic, and who came away therefrom with a Latin statement which he could not read engrossed in a fair hand on an imitation sheepskin, was held in law and custom to be a doctor of medicine.

Note the change. To enter a medical college of Ohio at this time the applicant must present either of the following credentials:

A diploma from a reputable college granting the degree of A. B., B. S., or equivalent degrees.

A diploma from a normal school, high school, or seminary, legally constituted, issued after four years of study.

A teacher's permanent life certificate.

A medical student's certificate issued upon examination by any state board.

A student's certificate of examination for admission to the freshman class of a reputable literary or scientific college.

Or a certificate of his having passed an examination, conducted under the direction of the State Board of Medical Registration and Examination by certified examiners, none of whom shall be directly or indirectly connected with a medical college. Said examinations to be held simultaneously in Cincinnati, Cleveland, Columbus and Toledo, and the questions submitted to be uniform at such places.

The minimum requirements for admission to medical colleges, as adopted by the State Board of Medical Registration and Examination are as follows:

Foreign Languages—Two years of the Latin language.

English—English literature, composition and rhetoric.

History—United States history and civics, with reference to the constitutional phases of American history.

Mathematics—Algebra through equations, and plane geometry.

Science—Botany or zoology; physiology or chemistry, and physics.

Each applicant must attain a grade of seventy-five per cent.

The examiners for entrance to medical colleges are four in number, one from Cincinnati, one from Cleveland, one from Columbus and one from Toledo, appointed by the board and acting under the rules of the board. The same questions are given at each of these four cities of Ohio, and at the same hour, the same length of time being alloted to each; one examiner reads and grades all papers returned in the state in any given subject, so that the basis of grading will be the same for all.

MIDWIFERY.

As a result of our law all persons desiring to enter upon the practice of midwifery must pass an examination. I will spare you the recital of the extent of the examination and the rules governing the same, but will add that under our present law, no ignorant and unqualified midwife will in the future find an abiding place in Ohio.

IMMORALITY.

One of the wise provisions of our law is that it gives the board the right to refuse to grant a certificate to any person guilty of felony or gross immorality, or addicted to the liquor or drug habit to such a degree as to render him unfit to practice medicine or surgery; and may, after notice and hearing, revoke a certificate for like cause.

Acting under the provisions of this law, the board has refused to grant a number of certificates; and other certificates have been withheld until the applicant has furnished satisfactory evidence that he had given up the liquor habit, and it is confidently believed that the one who had gone astray had been reclaimed. The strong arm of the law has been trown about those guilty of immoral practices and their certificates have been revoked.

Thus, gentlemen of the Confederation, I have given you, in the main, the accomplishments of the Ohio Medical Practice

Acts. It is difficult to enumerate all the advantages the law has been to the profession and the citizens of our commonwealth in disrobing charlantry and criminality, and guarding the portals of the profession against incompetency. A revoltuion of sentiment has taken place in Ohio. The conditions that hindered progress in the past have been removed. Ohio has been elevated to the front rank instead of being the dumping ground for our sister states. Our flag waves an invitation to all newcomers, but they must pass an examination and attain an average grade of seventy-five per cent. The supervision that has been placed over medical colleges has made it impossible for frauadulent schools to exist. Our medical colleges are open to all, but the applicant must comply with the standard for entrance which is uniform throughout the state, "not less than a high school standard." "Since the passage of the law the medical profession has taken on new energy. Medical societies have been newly organized. Now ones have been formed; the membership greatly increased, and the scientific and literary work is of a very much higher order than formerly."

There is today practically unification among the physicians of the state, upon the broad lines of a higher standard of educational excellence. The medical journals of Ohio are in full accord with the new law an dtheir many favorable editorials and comments are calculated to crystallize public sentiment and advance our intertsts. Perfect harmony exists among the different sects or schools; they are all in favor of the impartial enforcement of the law. The regular, the homeopath, the eclectic, the medio physic are represented on the Ohio State Board of Registration and Examination, and they all, with dignity, stand for the profession as a whole. In fact the middle walls of division and signals of discord that existed, have passed away.

All hail to the men who have inaugurated the standards that have been engrafted int othe laws of the different states of this county. When the time comes, as it surely will very soon, that the inhabitants of our southern and neighboring nations, when the South Americans, New Zealanders, Japanese, Chinese, as well as the young doctors from Europe, will flock to the United States as we now journey to Paris, Vienna and Berlin, to finish their medical education partially commenced at home, then will the names of these pioneers in the region of unexplored higher medical education be written and talked about as are now the great medical savants of continental eurape.

Gentlemen of this Confederation, you have honored Ohio by making Doctor N. R. Coleman your president for two years. Ohio has honored him by making him president of the State Board of Registration and Examination for seven years. Ohio owes more to Dr. Coleman for our very efficient medical law than to any man in the state. To him and to him alone we owe our high standard for entrance to medical colleges. He is truly a pioneer, and as such, will be looked upon as a man whose efforts, when this country was yet young, were directed with all the fire and force of his energetic nature for placing medical legislation on a higher basis; and as such his name and other great pioneers will be as immortal as those of Harvey, Hutner and Vesalius.

Dr. D. V. Burkett, captain and surgeon, Troop B, Governor's Guard; Dr. J. B. McComb, captain and surgeon, Battery H, First Light Artillery; Dr. S. B. Taylor, captain and surgeon, Co. C, Fourth Ohio; Dr. C. M. Shepherd, captain and surgeon, Co. A, Fourth Ohio Regiment; Dr. W. H. Knauss, Newark, captain and surgeon of Newark Co.; Dr. L. T. Guerin, major, chief surgeon of Second Division, O. N. G.; Dr. H. H. Snively, captain and adjutant, Fourth Infantry, O. N. G., will accompany their respective regiments into state encampment quarters at Camp McKinley, Newark, August 17-24.

FIELD HOSPITAL FOR O. N. G.—Dr. E. C. Bush, surgeon general of the O. N. G., has received word from Washington that $7000 has been granted for the purpose of equipping a field hospital for the Ohio National Guard.

THE DEVELOPMENT OF OBSTETRIC SURGERY.

BY JAMES U. BARNHILL, A. M., PH. D., M. D.,

Professor of the Principles of Surgery and Clinical Surgery, Ohio Medical University; Surgeon to the Protestant Hospital; Formerly Surgeon to the Columbus Hospital for Women, Columbus, Ohio.

Operative obstetrics had its beginnings among the earliest observations and practices of those who first sought to minister to woman in labor. The appeal of the parturient sufferer, the sympathy of her companion and other friends, the love of children, and the sacredness of maternity, must from the remotest antiquity, have directed unusual attention to gestation and labor. In all ages and countries, their phenomena have appealed to medical practicians to solve the mysteries of fetal development, to assist nature in her difficult and sometimes unequal tasks, to relieve the anguish of parturition and stay the hand of disease and death from mother and child. These appeals—incessant and universal—growing more significant with the progress of civilization, have enlisted the efforts of physicians in all ages, and have thus been potent factors in the progress of obstetric science. No other department of medicine has had more definite or louder calls to duty, and no other has done more to stimulate investigation or point the way to new achievements.

Beginning with the celiotomy whereby Æsculapius is said to have been delivered, obstetric surgery has saved hundreds of mothers and children by Cesarean section and suggested, if it did not indeed lay the foundation of abdominal surgery. The importance attaching to the work and the general participation in it by all the members of the profession, led to careful observation and study. Its arduous tasks and duties demanded at all times decision, prompt action, and the highest skill.

Historical development of obstetric surgery may be conveniently outlined under the following heads: (1) The study of anatomy by the Egyptians; (2) attention to cleanliness by the

Jews; (3) the study of improved technique by the anicent Greeks; (4) podalic version by the Romans; (5) Cesarean section, as revived by Nufer; (6) invention of the forceps; (7) the use of chloroform in labor; (8) asepsis by antiseptics as inaugurated by Semmelweis, and perfected by Pasteur, Lister and others.

In all civilized countries the mortality of childbirth and love of children have led to careful study of the human body, particularly of the maternal pelvis, and thus promoted a general knowledge of anatomy. In Egypt, which furnished the best record of early medicine, autopsies were more frequent than in any other country, and the effort of the Egyptians to solve the mysteries of parturition suggested the study of anatomy and the making of post mortem examinations. As they did not shrink from human dissection, they became acquainted in a degree with human anatomy. The custom of disemboweling and embalming the bodies of the dead, favored the study of the various organs of the body.[1] Later under the influence of the Alexandrian school of medicine "organs were also examined by opening the bodies of living persons—criminals condemned to death being given over to the anatomists for this purpose."[2]

In the reign of Athotis, who was the son of King Menes,[3] both of whom were physicians, lying-in apartments were maintained in connection with sacerdotal colleges at Thebes, Memphis, Sais and Heliopolis. These colleges were the prototypes of the later university at Alexandria. They had lecture rooms, wards, libraries, laboratories, as well as boarding houses for students. According to the Ebersian Papyrus (1550 B. C.) Athotis Inhoteps (physician), who has been styled the Egyptian Æsculapius, wrote a work on anatomy. Attention to the subject by the king is evidence of the high esteem in which medical science was held by Egyptians. The "Egyptian women were delicate and luxurious and bore children with difficulty," but the difficult cases, requiring manual or instrumental assistance, were attended by physicians "educated in the whole art of obstetrics," normal labors being cared for by meschennu (midwives).

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[1] Scripture record, 1700 B. C.

[2] Chambers' Encyclopedia, article Medicine.

[3] Menes lived, according to Bokh, B. C. 5702.

With physicians for each part of the body (Herodotus) and for each department of practice, conditions were favorable for the advancement of knowledge of anatomy and the study of the mechanism of labor. In later times the "superior order of priests educated in medicine from the first thirty-six Hermetic books, were called upon to attend the most difficult cases of labor," and also treated the various diseases of women.

Thus it seems evident that the phenomena of gestation and the mechanism of labor aided in directing the Egyptian physicians to the study of the structure of the human body. In Egypt are to be found some of the earliest attempts at recording anatomical data. The early Alexandrian records were, through many centuries, of singular service in developing surgery. The Persians had knowledge (doubtless derived from the Egyptians) of methods of producing abortion, but by their theurgic rules "artificial abortion was forbidden."

Among the Jews, whose medicine was transplanted from Egypt, obstetric operations were probably not so extensively practiced owing to the sacredness with which they looked upon the human body. The study of anatomy was not so common as it was among the Egyptians. Even in the most abnormal conditions nature was unassisted. Midwives were depended upon chiefly to care for parturient women, and even in the most difficult cases they did not seem to have the assistance of physicians, for it is said that in such cases the midwives simply comforted the parturient until she was relieved by death. Deliveries took place with the woman in the sitting posture upon a low stool, or in the lap of another woman. Knowledge of obstetrics was, as these practices indicate, not extensive. "However, they were superior to many other nations, in reference to cleanliness and other hygienic regulations at the menstrual period and during the puerperium." The many wise and beneficent sanitary regulations of the Mosaic law are among the richest legacies of ancient medicines. The characteristic eutocias of Jewish women rendered operations rare, but in insisting upon scrupulous cleanliness Jewish medicine taught one of the most important lessons in operative obstetrics and general surgery, thus anticipating modern asepsis. Jewish physicians in the Talmudic period made frequent dissections and performed many obstetric operations. "Cesarean section on the living female was practiced with success (Israels) and they practiced version, evisceration and abortion."

Operative midwifery reached a degree of development in India three centuries before the Christian era, and suggested, there as in other countries, many improvements in general surgery. Ovariotomy and other forms of laparotomy, extirpation of tumors and herinotomy were performed by Indian physicians. Besides Cesarean section upon women who died in the latest period of pregnancv, "cephalic and podalic version, embryotomy, embryulcia and craniotomy, were performed. "When the child cannot be brought forth," says the Ramayana (B. C. 250), "the physician may employ the knife in such a way that he may by no possibility cut a living child with it; for if the child is injured, the physician may destroy both mother and child together." They believed that accouchement required the aid of four stout women. If however, "the position of the child was faulty it had to be either improved by the physicians (version) or the labor must be terminated artificially." Although in China and Japan medicine was cultivated 2000 years before Christ, these countries added practically nothing to obstetric surgery. Practical "midwifery was then, as it is now, in the hands of old women who studied the position of the child according to plates and drawings and made out a great number of superstitious manipulations, amulets," etc. "Physicians now busy themselves with prescribing remedies which are supposed to change the position of the child in utero, though they know very little either of the uterus or its functions." In recent years many of the Turks have in their ordinary practice broken away from their ancient customs and ventured to practice operative midwifery.

In ancient times among the Greeks, midwifery was in the hands of women who were called omphalotomai (naval cutters). Their duties included kneading and rubbing the abdomen to improve the position of the child, the administration of medicine, etc. The omphalotomai were permitted to induce premature labor and deliver the placenta. Obstetric science included the position of the child and that of the parturient woman, adhesions and deliverance of the placenta. In presentation of the breech version was exclusively recommended, though no practical method for its accomplishment was given. Hippocrates describes the viability of the child (in the seventh month), abortion, and artificial induction of labor, which operations he condemned. Other Greek physicians, however, "gave rules for the production of abortion, among them the tampon. They also describe the opening of the cranial cavity, thorax and abdomen of the child, amputation of extremities, and extraction by instruments.

Many of the operative procedures of modern times were known, though in crude form, to the ancient Greeks. Cesarean section both upon the dead and living mother was known to them. Their first operations were performed only when the mother was dead. The operation of removing the child when the mother was living was called by them "hysterotomia."[1] From Pliny's statement: "Auspicatius, enecta parente, gignuntur sicut Scipio Africanus prior natus, primusque Cesarum a caeso matris utero dictus"[2]—and other records, it is evident that the name Cesarean was very early given to the operation, probably derived originally from caeso.

Grecian methods in medicine and surgery were largely adopted by the Romans. Philumenus (80 B. C.), a famous obstetrician, describes podalic version, contracted and oblique pelves, points out extreme youth and too advanced age as causes of dystocias and mortality of children. Cornelius Celsus (B. C. 25-A. D. 50), an eminent surgeon, wrote a work on obstetric and general surgery, in which he describes methods of extraction by means of instruments, the employment of version by head or foot, the latter operation he employs in transverse presentation, and aid or the subsequent extraction by manipulation. Breech may be converted into footling presentations. He describes dismemberment and decapitation.

Soranus of Ephesus, later Rome (A. D. 68-147), was likewise a noted obstetrician and surgeon. He wrote a work on "Diseases of Women," which is the only extensive obstetric work preserved from antiquity written for the use of midwives. "Its contents furnish evidence that gynecology and obstetrics, both ordinary and operative, as well as the management of the child, belong among the most perfect branches of ancient medicine." He distinguishes the vagina from the uterus. Hysterectomy he regards as not necessarily fatal. "Inversion of the uterus may be produced by too much traction on cord in removing placenta."

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[1] J. Grigg Smith's Abdominal Surgery taken from Keister's System of Surgery, 1750.

[2] Historia Naturalis.

Moles, pregnancy and tympanites were differentiated by percussion and succussion. He gives an account of the vaginal speculum, directions for anointing finger and hand for examination, evacuation of the bladder by the catheter, and "rupture of the mentrane to aid in difficult labor." Version, he said, could be performed by "either the head or feet," and this in case of living children. For performing version the hand should be introduced "into the uterus with the fingers formed into a cone." Embryotomy, craniotomy and extraction are mentioned.

Galen contributed by his writings to the preservation of knowledge of obstetrics, anatomy and physiology, through the subsequent long period of comparative indifference to scientific medicine. Paulus Ægineta (A. D. 625-690) recognized the causes of hysteria and sterility, recommended clitoridectomy in nymphomania and ligation of limbs in metrorrhagia. He discusses extraction of the dead child, embryotomy and methods of delivery of the placenta. Very fat women were placed upon the abdomen "with the legs raised up behind," a position securing the advantages of the Walcher method.

Through the middle ages the condition of obstetrics may be inferred, says Baas, "from the fact that in faulty position of the child, Ætius recommends the following proceedings: To cut off the upper and if necessary the lower extremities, also, then to decapitate, afterwards to deliver with instruments first the trunk, then the head, a style of management which prevailed down into the eighteenth century. The same author was acquainted, however, with podalic version and also inculcated protection of the perineum.

In Arabia and Asia Minor the surgeons officiated as obstetricians in difficult cases of labor and watched over the practice of midwifery by the physicians and midwives. Certain operations on women, such as lithotomy, repairing the prolapsed uterus, etc., could be performed by midwives only. Between the eighth and ninth centuries, Ishak of Hira, the most distinguished teacher and court physician at Bagdad, advised in fleshy persons, the knee-elbow position in instrumental cases.

Rhazes (850-923) describes several operations among them "embryotomy for the relief of labor." Arabian physicians added nothing new, but helped to save Egyptian, Grecian and Roman science from total oblivion,. By maintaining interest in Grecian medicine they promoted medieval surgery and the revival of learning.

Among the Italians operative midwifery was united with surgery, but made slow progress for, as in France, it was principally in the hands of the barbers and midwives. The latter received their instructions in the art from the clergy. The council of Cologne "decreed in 1280 that in the case of sudden death of a woman in labor, the midwives must keep her mouth open with gags until the child was delivered by Cesarean section, so that the latter would not suffocate."

Cesarean section in Germany was performed at Medingen, in the year 1350, upon a woman condemned to be burned.

About the beginning of the sixteenth century, in the golden era of anatomy, the age of Vesalius, Fallopius, Eustachius, Gemini. Surgery from Pare, and midwifery from Magnus and Rueff, received a new impulse. Rosslin in 1513 revived podalic version. Cesarean section upon the living mother was practiced and "fell at last into the hands of men." It was about this time that "midwifery was liberated from its dependence upon surgery and made an independent department."

The technique of podalic version and indications for the operation were carefully set forth by Guillemeau in 1594, Louise Bourgeois (1564), the midwife of Marie de Medicis, was educated in Pare's school for obstertics in Holel-Dieu. The latter was the first to direct attention independently to the comparative safety of footling births," which had previously been regarded as very dangerous.

Parre was the first to induce labor artificially at full term in cases of hemorrhage.

The first well-described Cesarean section planned and performed on a living woman was practiced by the sow-gelder, Jacob Nufer, of Siegershausen, upon his own wife, about the year 1500. After "thirteen midwives and several lithotomists had endeavored in vain to relieve her," her husband, having invoked the assistance of God and obtained the special permission of the governor of Frauenfeld, operated "eben als am sau" with such good fortune that the mother survived to the age of seventy-seven, and was able to subsequently bear several children, and even twins, in the usual way. The Cesarean section became the fashion for a short time. As a result of the enrichment of the technique of operative midwifery, Cesarean section seems in the course of the sixteenth century to have been practiced repeatedly, in Italy 1540 by Christopher Bain, 1531 in Neusse and 1549 at Vienna by unknown operators.

Francois Roussetus, a Paris surgeon of distinction (1581), wrote a treatise on Cesarean section entitled "Traite nouveau de l'Hysterotomotokie on Enfantement Cesarean, qui est Extraction de l'Enfant par incision laterale du ventre et matrice de la femme grosse, ne pouvant autrement accoucher," in which he enumerates fifteen successful cases. About the same time Pierre Franco sought to extract the head by the aid of an instrument resembling a speculum and removed artificially an adherent placenta. Guillemeau recommended the accouchement force in acute partum hemorrhage, and Sylvius suggested symphyseotomy. Genecology became a separate branch under the influence of Conrad Gesner, obstetrician, gynecologist and surgeon. Practicians who did most operative work in obstetrics in those days were the pioneers in other forms of surgery.

In Germany during the sixteenth century little advance was made in operative obstetrics. It was still largely in the hands of midwives and "ordinary surgeons, the better surgeons operating simply in the worst cases." The first separate treatise on midwifery in the German language was by Eucharius Rosslin (1513), a physician of Frankfort-on-the-Main. This work—Der swangeren Frawen und Hebammen Rosengarten—discusses obstetrical manipulations, obstetrical instruments, fetal positions, and the management of uncommon presentations. "When the child is dead he recommends the induction of premature labor." The work, said to have been translated into several languages, describes in full the crude doctrines of operative midwifery of that day, "many of which continued in vogue for a long time thereafter."

Realdo Colombo, successor of Vesalius at Padua, wrote: "I have with my own hands drawn not only dead but living children out of the uterus of the mother, not only once, but frequently, and as I did this I observed carefully the position of the womb." Thus it is evident that well-educated physicians were practicing operative obstetrics. Ordinarily, however, at that time midwives only were admitted to the lying-in room, a "custom so strongly maintained that in the year 1521 a Hamburg physician named Veithes, who dressed himself as a midwife and brought to a happy conclusion a labor which the midwives could not complete, is said to have been burned in punishment for his sorcery." Midwives "carried instruments in a pocket case suspended from their belts."

In 1565, Thomas Raynalde, of London, translated Rosslin's work on obstetrics under the title of "The Byrthe of Mankynde." "Dr. George Owen, physician to Henry VIII, Eward VI, and Queen Mary, and president of the College of Physicians in 1553, professed to have delivered Queen Jane Seymour of Prince Edward by Cesarean section in 1537," but the statement, says the historian Baas, "lacks all confirmation and probability." The celebrated Dr. Harvey is known to have practiced obstetrics as early as 1603, so that we may assume that during this century regular physicians attended, at least in England, ordinary cases of labor. Harvey, who also practiced gynecology, wrote (1561) a work "On Parturition," in which he describes normal labor and operative procedures for difficult cases. Dr. John Maubray (about 1723) is believed to have been the first public teacher of obstetrics in England. Dr. William Gifford employed (1726) his extractors, and in 1790, Dr. John Aitken devised pelviotomy to displace Cesarean section.

(Continued.)

Stephen Kenko, a Slav, of Cleveland, on a charge of illegal practice of surgery, was fined $200 and costs and given one year in the Cleveland workhouse. The operation was "bleeding for fever," which resulted in the patient's death.

At the last examination given by the State Medical Board fifty-one licenses were granted on certificates without examination. The result of the examination of the other candidates was given in our last issue.

Periscope of Medical Progress.

MEDICINE.

1. STARVATION PRINCIPLE IN EPILEPSY.

W. D. INGLIS, A. B., M. D.

"Note on the Salt Starvation Principle in Epilepsy, Treatment by Bromides."—Dr. L. Pierce Clark (New York Medical Journal, Feb., 1903), urges the importance of the hypo-chlorization diet treatment in conjunction with the bromides. The writer argues that since most epileptics are very fond of table salt as well as other highly seasoned condiments, their body tissues are highly saturated with the chlorides, and since, by experimenting upon animals and men it has been shown that bromine can replace chlorine in the body tissues, therefore by sodium chloride starvation and the continual administration of the bromides, we get an organic bromide compound acceptably fulfilling the physiological role of chlorine and at the same time acting as a therapeutic agent of sedation in epilepsy.

Under the salt starvation method 20 to 60 grains are as efficacious as 60 to 160 grains where this principal is disregarded. The lowering of the dosage of the bromide has an economic feature in it, as bromine sedation must often be continued for several years. Again, it lessens the liability of toxicity from the drug, with its well-known attendant evils upon mind and body. The writer concludes by asserting that the hypo-chlorization adjuvant principle is the greatest therapeutic advance since the discovery of the bromides.

2. FORMALDBHYD IN MILK.

A good test for the presence of formaldehyd in milk (National Hospital Record), is to dilute the suspected milk with an equal volume of water and underlay this mixture with sulphuric acid containing a trace of ferric chlorid. A violet zone at the junction of the liquids reveals the presence of formaldehyd, while in pure milk the zone will be brown.

SURGERY.

ANESTHETICS IN FACE OPERATIONS.

BY H. H. SNIVELY, A. B., M. D.

Doctor George Crile of Cleveland, in the *Annals of Surgery* of June, describes a method of administering the anesthetic and preventing the inhalation of blood in certain operations on the mouth and face, as follows:

"1. The patient is reduced to full surgical anesthesia.

2. The pharynx is cocanized.

3. Two drain-tubes as large as possible are passed through the nares to the level of the epiglottis; the tubes are then severed at an equal distance from the nose.

4. The mouth is well opened and the tongue drawn out.

5. The entire pharynx is then packed with rather large pieces of gauze.

6. If thoroughly done, the base of the tongue is carried well forward, and an air-chamber with which the rubber tubes and the larynx communicate is thereby formed."

The advantages may be summed up as follows:

1. The anesthetic is administered evenly and entirely away from the field of operation.

2. The patient may be placed in positions best suited to the operative technique, regardless of blood.

3. In operations upon tongue there is sufficient pressure against the base usually to stop hemorrhage until the lingual arteries are cut.

In cleft palate operations the field of operation is kept cleaner and the mucus that usually forms in the throat is absorbed by the gauze.

Dr. Crile also describes a hot-water mattress for the operating table which has been used at the Lakeside Hospital during the past year. He says this bed is made of the best quality of rubber, in many compartments, so as to fit the top of the table. The tubing attached to the hot-water bed to the hot-water tap, and a flow of hot water directed through it and drained from the other end. It is only necessary to let hot water flow through it for a half hour and then fill it just before the operation.

The value of such a mattress consists in preventing such post-operation sequelæ, as pleurisy, bronchitis and pneumonia due to exposure to cold during operation.

Practical Therapeutics.

For Constipation:

℞ Extracti podophylli	grs. ¼	.016 cc.
Extracti hyoscyami	grs. 1	.065 cc.
Ex. colocynthidis comp....	grs. 1	.065 cc.
Extracti ipecacuanhæ	grs. ¼	.016 cc.
Extracti physostygmæ	grs. ¼	.016 cc.

Misce et fiant in pilulam unam.

Signa: One pill three times a day. (If cannot stand the whole one, divide.)

For Headache and Neuralgias: Sodium salicylate in 15 grain doses.

For Gravel:

℞ Potassii citratis	oz. 1	31.1 gm.
Succi limonis	oz. 4	120.0 cc.
Aquæ vel syrupi.........	oz. 4	120.0 cc.

Signa: Tablespoonful in water every four hours.

For Cystitis or Irritable Bladder:

℞ Tincturæ opii camphoratæ.		
Vini ipecacuanhæ.		
Spiritus etheris nitrosi...āā	oz. 2	60.00 cc.

Signa: Teaspoonful three times a day.

For Incontinence of Urine:

℞ Tincturæ belladonnæ	oz. 1	30 cc.

Signa: Ten drops three times a day and increase one drop a day till the throat gets dry. With it give all the lemonade patient will drink; (this makes urine alkaline).

Diarrhea of Children:

℞ Olei ricini	drs. 4	15.00 cc.
Mucilaginis acaciæ	drs. 2	7.8 gm.
Sacchari	drs. 2	7.8 gm.
Aquæ destillatæ	drs. 7	26.25 cc.

Misce et fiant in emulsum.

Signa: Teaspoonful every three hours.

THE COLUMBUS MEDICAL JOURNAL.

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AUGUST, 1903.

Editorial.

IRRITATING FUMES FROM BURNING CHLOROFORM VAPOR.

The discomfort and danger arising from the irritating gases produced by chloroform coming in contact with the fire and light may be avoided by counteracting them with the vapor of ammonia. This may be accomplished by hanging a towel in front or around the light or fire, and keeping it moistened throughout the operation with aqua ammonia. "While chloroform is not readily combustible its vapor is consumed in small quantities when coming in contact with a gas jet or the fire, and this combustion results in setting free chlorine and some of its irritating compounds." All physicians have had more or less unpleasant experiences in the use of chloroform, and it is said that deaths have been caused by inhaling the mixture so produced at operations. Usually unpleasant results can be avoided by having free ventilation and by using care in not giving chloroform too freely. But even with fair ventilation and due precautions in the administration of chloroform, the fumes of the chlorine become quite disagreeable. It is sometimes the case that physicians attribute the disagreeable vapor to impurities in the chloroform. Dr. Galloway sometime ago reported such a case for the purpose of calling attention to the true source of irritation. In this case the chloroform was examined and it was found to be perfectly pure, "containing no free chlorine, no acid or other impurities, conforming in all respects to pharmacopical requirements." As stated by Dr. H. A. Hare, in the last International Medical Annual, in reviewing Dr. Galloway's paper: "There is little occasion to question the purity of the chloroform or ether at present in the market, and the frequent complaints about impurities in the anesthetics are usually due to ignorance of such facts as are set forth in Dr. Galloway's communication."

MILK AND DAIRY INSPECTION IN COLUMBUS.

The Columbus Board of Health has adopted new rules for the regulations of the sale of milk and the inspection of dairies. This part of the sanitary code went into effect early in August. The regulations make it unlawful for anyone to engage in the sale of milk or cream in the city of Columbus, who has not secured a permit of the Board of Health so to do. This permit or license must be renewed every six months. The following information must accompany application for permit: The name, residence, postoffice address and location of the business place or places of the applicant; the number of cows from which milk is obtained for sale, and the kind of food which the cows are given; if the applicant buy part or all his milk supply, the names and addresses of all persons from whom he obtains milk or cream; if the applicant be a shipper of milk or cream into the city he shall, in addition to the above, state the route of his shipments. The license is not issued until the board is satisfied, after an inspection, that the sanitary condition of the dairy is satisfactory and that the persons conducting it use due cleanliness in their work. The quality of the milk shall not be lower than 12½ per cent. solids and 3½ per cent. fats, except during the months of May and June, when the standard shall be 12 per cent. of milk solids and 3 per cent. of fats. When milk tickets are used as representatives of values, they must be in coupon form and must be destroyed after once using. Specific directions are given in this code for milkers and the handling of milk. All cans or bottles used in the distribution of milk must be thoroughly cleansed by using soap and water or soda and water, and must be thoroughly sterilized by boiling water or steam before they are again used as receptacles for milk. Provision is also made against conveying contagious diseases. A penalty of from one to one hundred dollars may be imposed against a dealer for violation of the code, or imprisonment after first offense, besides revocation of his license.

THE ASEPTIC CONSCIENCE IN OBSTETRIC PRACTICE.

In no department of surgical work is asepsis more essential than in the practice of obstetrics. We are accustomed to regard the management of normal labor as medical rather than surgical, but this is a misconception. The whole duty of the accoucheur other than that which is purely advisory, is surgical; that is, any manual assistance or interference during labor is essentially a surgical procedure. The opportunities for infection from the surroundings are even greater than they are in the management of ordinary surgical cases. These facts are recognized by all, but anyone who has observed the obstetric work of the average physician knows that it is not appreciated and carried out in actual practice. Towels, sheets and dressings, are rarely ordered sterilized, and the merest pretense at sterilization of hands and instruments suffices—both are repeatedly permitted during the operation to come into contact with bed clothes, person of patient, or other unsterilized objects. Like other surgical work accouchement can never be conducted under as favorable circumstances at the home as in the hospital. Yet with a trained nurse it may be made practically as safe, but it cannot be until the asceptic conscience has been developed in both physician and nurse so that every possible precaution will be conscientiously carried out. Except in extraordinary circumstances the physician should refrain from doing anything until he can be properly prepared. The use of rubber gloves has been found a very great advantage in securing aseptic management of labor. They are not only a safeguard against sepsis, but are less irritating than the bare hand. The writer recently heard an old practitioner, accustomed to using methods in vogue several years ago, probably when he graduated, congratulating himself that in attending fifteen hundred labors he had had but three deaths from puerperal sepsis. He was inclined to regard strenuous efforts at securing asepsis as unnecessary refinements, failing to realize that his own record condemned his careless methods. One death in five hundred, under the most favorable home environment, seemed to have no terrors for him; notwithstanding aseptic precautions properly carried out furnish hospital records of more than three thousand consecutive cases of labor without a death.

This phase of obstteric practice should be the physician's constant care. In time anything less than surgical cleanliness will disturb his conscience to such an extent that he will always seek to secure it. He will then have the aseptic conscience which insists upon the utilization of all modern knowledge and means of securing the same safety, as nearly as may be, in the home that can be had in maternity hospitals. *It is the conscience that is satisfied with nothing short of strict surgical cleanliness in the lying-in room—that feels that asepsis is the absolute requisite for the attainment of passable results, and demands it in all forms of obstetric practice, normal and operative, as constantly and universally as in gynecology and general surgery.*

ALCOHOL IN PATENT MEDICINE.

The Hospital, of August 1, contains some very pertinent comments on the American method of advertising patent medicines in public places, quoting a contemporary who advises Americans to refuse to have their houses, barns and fences disfigured with advertisements. This system of advertising should be condemned on esthetic grounds alone, but it is even more objectionable for the reason pointed out by the writer, that many of these advertisements are those of patent medicines, some of them containing large quantity of alcohol. Even the advocates of temperance will permit posters of patent medicines, containing alcohol, to be thus advertised on their premises. He cites instance of a woman who having refused to have the advertisement of beer painted on her husband's barn, afterwards gave her consent to the exploitation of a patent medicine which contained 38 per cent. more alcohol than the beer. Assuming that she did not know that the medicine "was only another form of drink," the writer asks, 'how long are intelligent women going to allow themselves to be in ignorance of this curse of the patent medicine?" A curse which is far more deep-seated and hurtful than what is called the drink question. This custom of advertising in America must appear very unsightly to those who have not become accustomed to it, but the writer admits that in England in other ways the English are asked to buy and use all manner of patent drugs "with fancy names, warranted to cure every disease under the sun." "They may be harmless—and perhaps useless—but it is equally possible that they contain alcohol, and that the feeling that they do one good, which those who swallow them are eager to claim, is no more than the exhilaration that comes from alcohol, while the notion that it is "medicine" they are taking and not "drink" is in itself an insidious temptation. If they knew its constituents they would not touch it, but women who are scrupulous to the last degree about every article of food that enters their household are reckless in buying any much-advertised nostrum. Even if there be no alcohol in the medicine, it does not follow that it is harmless, the drug habit being as bad as the drink habit, whether the drinking be open or concealed. In short, medicine should not be taken except under the instructions of a doctor, who knows what he is prescribing." The custom in America of advertising in relgious and secular papers patent medicines, the majority of which contain alcohol or other harmful ingredients, is even more objectionable. Every day we have served up before us in the daily papers and in the religious publications, extravagant statements in reference to the claims of certain remedies the contents of which are usually unknown; many of them accompanied with unsightly pictures and illustrations. These are objectionable from a moral and esthetic standpint, but even more so for the reasons given above.

In line with this discussion we quote the following from *Amerioan Medicine*: "The Peruna habit and other forms of alcoholism should be looked into by its religious and newspaper sponsors. We are indebted to Mrs. Martha M. Allen, the energetic worker of the W. C. T. U., for having asked the Massachusetts State Board of Health to analyze Peruna. In an advertisement of this nostrum a statement was made that 'Peruna has among its friends many of the leading temperance workers in this country who give it unstinted praise, and do not hesitate to endorse it by the use of the most extravagant language.' The chemist found it contained 23.46 per cent. by weight of alcohol. The Massachusetts board found 15.33 per cent. of alcohol in Vinol; 16.77 per cent. in Lydia Pinkham's Vegetable Compound; 5.87 per cent. in Swamp-root. In Orangeine there were found acetanilid, caffein, and sodium bicarbonate. Concerning acetanilid, Dr. Abbott, secretary of the board, says that it should be taken with much caution lest its frequent use degenerate into a confirmed habit. The proprietors of White Ribbon Remedy were not going to be trapped in one way—there was no alcohol in the drug, but only milk sugar and ammonium chlorid. It is 'as likely.' adds Mrs. Allen, 'to cure drunkenness as would a blast of east wind.' We have entire sympathy with the efforts of the W. C. T. U. to expose the meanest hypocrisy of the worst of liquor sellers, the patent medicine manufacturers."

Well may we ask of the secret nostrum vender, *Quousque tandem abutere, patientia nostra?* The answer is suggested by "The Hospital" correspondent: "Just as long as the people permit themselves to be in ignorance of the possible harm that may result from patent medicine."

COLLEGE ANNOUNCEMENTS.

We are in receipt of the catalogues of the two local medical colleges. Both institutions open September 16, 1903, the Ohio Medical University closing April 28, and the Starling Medical college May 3, this being an extension of the course two and three weeks respectively. Both catalogues show some improvement over former years. The enrollment in both institutions is about the same as for the previous year, the attendance at the Starling being one hundred and sixty-three, and at the College of Medicine of the Ohio Medical University two hundred and five; the total registration at the Ohio Medical University was four hundred and thirty-three. There were few changes in the faculty of either institution. To the Starling faculty Dr. James A. Beer was added as instructor in Embryology, and the titles of several lecturers were changed to professors.

The following additions were made to the faculty of Ohio Medical University: Dr. McKendree C. Smith, M. S., M. D., instructor in Dermatology and Genito-Urinary Diseases; Ernest Scott, B. S., M. D., instructor in Histology; Edward A. Hamilton, M. D., instructor in Proctoscopy; Scott Fulton, M. D., instructor in Histology; Harry H. Snively, A. M., M. D., assistant in surgery; John A. Riebel, M. D., assistant to chair of Genito-Urinary Diseases. Both institutions have raised fees to one hundred dollars (which include laboratory fees) a year, with a matriculation fee of five dollars, payable but once, and a graduation fee of ten dollars. Both colleges adhere strictly to the requirements for admission as established by the State Board of Medical Registration and Examination. The catalogue of the College of Medicine of the Ohio Medical University gives its schedule of instruction complete as to subjects and hours, showing that the first year provides for 480 hours of recitation, and 380 hours of laboratory work. The sophomore year 650 hours of recitation and 161 hours of laboratory work. The junior year approximates 470 hours for recitation and 550 for clinics. The senior year approximates 500 hours of recitation and 700 for clinics. A directory of the alumni is also published in the announcement.

The indications are that notwithstanding the advanced requirements for entrance and increase in fees there will be no falling off in attendance in either institution.

OHIO VALLEY MEDICAL ASSOCIATION.

The Ohio Valley Medical Association met at Henderson, Ky., June 11 and 12. Important legislation was transacted extending the boundary oi this association over four states bordering on the Ohio river, viz.: Ohio, Indiana, Illinois and Kentucky. This association is rapidly growing and has members scattered not only over the four states, but Tennessee and Missouri as well, and with the extending its bounds so as to encourage growth it is destined at no distant day to be one of the important medical societies in the United States.

It was decided from now on to hold the meetings annually and in the fall. Evansville, Ind., was selected as the next place of meeting and the association hopes to make this the most profitable meeting in its five years of history. No date was set for the fall meeting at Evansville, but will be left to the committee on arrangements and will be at such a time so as not to conflict with the dates of the meeting of the Mississippi Valley

Medical Association or the Southern Surgical and Gynecological Association. Benj. L. W. Floyd, of Evansville, Indiana, was elected President; W. J. Stone, of Henderson, Kentucky, Vice-President, and A. J. Lieber, of Henderson, Kentucky, was continued as Secretary and Treasurer.

Obituary.

SAMUEL B. POTTER, M. D.

Samuel Bryant Potter, M. D., was born in South Bloomfield, Ohio, November 7, 1828, and died at his home in Fredericktown, Ohio, August 5, 1903.

Doctor Potter began his education in the common schools, which was continued in Corlett's Academy in Fredericktown, and in Norwalk (Ohio) College. He began to read medicine with his brother, Dr. Thomas Rigdon Potter, in 1850, teaching school in the winter to pay his expenses through college.

He entered medical college in 1852, and was graduated in 1854 from Jefferson Medical College in Philadelphia, since which time he has continued his practice in Fredericktown, except during a period in 1872, when he took a post-graduate course at Jefferson.

He was a member of the American Medical Association and of the North Central Ohio Medical Society, being for a number of years Vice-President of the latter. He left a widow and two children—Anna, the wife of T. W. Galleher, general freight agent of the Baltimore and Ohio R. R. at Baltimore, and Miss Nellie of her father's home.

The condition from which he died was stricture of the bowel. His life was one of great usefulness to his fellowmen, and has been characterized by unflagging devotion to his professional duty. He had a strict regard for the ethics of his profession, and as a man and citizen his life was above reproach.

Medical News Notes.

Dr. C. A. Cooperrider is at Atlantic City.

Dr. Geo. R. Bissell is at Pine Orchard, Conn.

Dr. J. M. Dunham has returned from Indian River.

Dr. T. C. Hoover has returned from Columbus Beach.

Dr. and Mrs. C. L. Spohr have returned from Beulah, Mich.

Dr. Josiah Medbery is spending the summer at Indian river.

Dr. A. Timberman is spending vacation at McConnellsville.

Dr. T. G. Youmans has been reinstated as police surgeon of this city.

Dr. J. F. Jones took a lake trip, spending some time at St. Clair Flats.

Dr. Elizabeth Bradley has gone to Georgian Bay to spend her vacation.

Dr. W. J. Means has gone to Northern Wisconsin for three or four weeks.

Dr. F. S. Rarey and family are spending several weeks at Atlantic City.

Dr. A. V. Davis, of Newark, is on a trip to the northwest and California.

Dr. C. W. Hoglan, of 201 East Long street, has returned from Cedar Point.

Dr. and Mrs. A. A. Peasley are on a trip to New York and other eastern cities.

Dr. F. H. Obetz is visiting Atlantic City, New York and other eastern cities.

Dr. C. W. Rogers and family have gone to Niagara Falls and other points of interest on the lakes.

Drs. Ernest Lueke and Adolph Cude, of Cleveland, were drowned in the lake August 7 while bathing.

Dr. Frank Warner left August 13th, for a trip to San Francisco, Los Angeles and other points in the west.

E. W. Williams, who held a correspondence diploma, was fined $25 and costs for practicing at Richwood, Ohio.

For illegal practice of medicine, L. S. Cooper, of Uhrichsville, was tried before the mayor and fined $100 and costs.

Dr. D. N. Kinsman in the early part of September goes on his accustomed annual trip to visit his mother near Boston, Mass.

Dr. Ralph Raymond Harris, Starling, '03, was appointed house physician at St. Francis hospital for the present year.

C. J. Stevenson, of Marietta, "a magnetic healer," for the illegal practice of medicine, was recently bound over to the grand jury.

Dr. George Stockton, Superintendent of the Columbus State Hospital, spent his vacation in New York, Philadelphia and other eastern cities.

At its last meeting the State Board of Medical Examination and Registration restored to Dr. C. F. Cookes his certificate to practice medicine.

On September 25 and 26, examination of candidates for admission to Ohio medical colleges will take place at the Central High School, Columbus, Ohio.

Dr. Phares P. Mauk, formerly of Toledo, now traveling for The Maltine Company, visited the physicians of this city recently in the interest of his company.

Dr. Guy A. Williams, of Richwood, graduate of the University of Michigan, was recently appointed assistant physician at the Columbus State Hospital.

George Cooperrider, Claren E. Pfeifer and Clark B. Hatch, juniors at the Ohio Medical University, are the externes at the Protestant hospital for the present year.

Dr. C. O. Probst announces the establishment of a private office for the treatment of tuberculosis and skin diseases at the McLene, 185 East State street, Columbus, O.

On a charge of illegal practice of medicine, a "Dr." Stapelton, a so-called magnetic healer, was tried before the mayor of Antwerp, Paulding county, Ohio, and fined $20 and costs.

Leslie M. Lisle, M. D., Starling, '03, and Arthur G. Helmick, M. D., Starling, '03, are respectively the senior and junior hospital house surgeons of the Hawkes Hospital of Mt. Carmel.

Wm. E. Allaman, M. D., O. M. U., '02; James B. Daugherty, M. D., O. M. U., '3, and Verne A. Dodd, M. D., O. M. U., '03, are the resident physicians at the Protestant hospital, term of service being eighteen months.

Dr. Norton Dock has been appointed Milk and Dairy inspector for Columbus. Dr. Dock is a graduate of the Department of Veterinary Medicine of the Ohio State University, and comes highly recommended by the dean of that department and others.

The President of the American Congress on Tuberculosis, to be held in Washington, D. C., April 4, 5 and 6, 1905, announces Dr. Alfred Meyer, of New York City, consulting physician to the Bedford Sanitarium for consumptives, chairman of a committee in charge of the section on sanitarium treatment of tuberculosis. It is probable that the climatic and other methods of treatment will be comprised under the work of this committee.

Recent Medical Books.

LIST OF BOOKS RECEIVED DURING JULY.—Organic Nervous Diseases. Starr. Lea Bros. & Co., publishers.

Practical Medicine Series, General Medicine, May. Billings and Salisbury. Year Book Publishers.

Text Book of Surgery. Brewer. Lea Bros. & Co., publishers.

Medical Jurisprudence. Dwight. Lea Bros. & Co., publishers.

Microscopy, Orthopedic Surgery. Archinard and Pedersen. Lea Bros. & Co., publishers.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, embracing the entire range of Scientific and Practical Medicine and Allied Science, by various writers. A new edition, completely revised and rewritten. Edited by Albert H. Buck, M. D., New York City. Volume VI. Illustrated by chromolithographs and seven hundred and sixty-three half-tone and wood engravings. New York, William Wood & Co. MDCCCCIII.

The sixth volume of this superb work, beginning with the word "Moss" and ending with the word "Rye," shows that the same painstaking care has been given to it, that was bestowed upon the preceding volumes. Much of it has been entirely rewritten and many new articles introduced. The illustrations, many of them in colors, are excellent. As an illustration of the completeness of the work the article on "Reparative Surgery, Plastic," is provided with seventy-four engravings, and the article on "Resection of Joints" has seventy-three excellent wood cuts. The contributors to this, as to the other volumes, are among the most eminent scientists and physicians in the English-speaking world. It is, in reality, an encyclopedia, the articles of which are signed monographs by specialists, carefully edited so that without duplication, the whole field of medical science is completely covered. We recommend it in the highest terms to the profession. B.

SURGICAL DISEASES OF THE ABDOMEN, with special reference to diagnosis, by Richard Douglas, M. D. Illustrated by 20 full-page plates. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. 1903.

The writer has gathered from a wide clinical experience and careful study of literature on the subject much useful information relative to the surgical diseases of the abdomen, and has presented it to the profession in a commendable and practical manner. He claims to have presented nothing except facts that have seemed to him of practical usefulness and have borne test of application.

The author states in his preface that his effort has been to elucidate the difficulties of diagnosis by a more thorough study of the causes and nature of these conditions and make possible a preparatory knowledge which not only is essential to perfection in operative technic, but which will deter the conscientious operator from undertaking tasks beyond his skill. Further to indicate the proper surgical procedure and to discuss some of the open questions involving the operative treatment and after management of abdominal cases, he has not gone into an extended description of operative technic.

Surgeons will find the work arranged very nicely for examination of any particular subjects sought for. M.

INTERNATIONAL CLINICS. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, etc. By leading members of the medical profession throughout the world. Vol. I. Thirteenth series. 1903. J. B. Lippincott Co., Philadelphia, Pa.

This publication has won meritorious praise from the profession. Vol. I of this series contains valuable articles from prominent teachers and clinicians of the country, among them might be mentioned Oster, Billings, Keen, Senn, Manley and Ballantyne. In addition to the original articles a review of the progress of medicine during the year by Watson and Catrell gives a valuable resume of the principle new things and methods in medicine, surgery and therapeutics.

BREWER'S SURGERY. A text-book of Surgery for Students and Practitioners, by George E. Brewer, A. M., M. D., Lecturer on Clinical Surgery at the College of Physicians and Surgeons (Medical Department of Columbia University), New York. In one octavo volume of 712 pages, with 280 engravings and 7 plates in colors and monochrome. Cloth, $4.00; leather, $5.00, net. Lea Brothers & Co., Philadelphia and New York. 1903.

The author of this volume has attempted to fill the demand for *a manual on surgery* adapted to the use of the medical student, and at the same time present a compendious account of the most modern accepted views of the principles and practice. It has been the tendency of each manual, a number of which have appeared in the past, to be increased in size in succeeidng editions and practically all have outgrown the demand for which they were originally intended.

In this work the essential facts in practical surgery are given fully, but as briefly as is compatible with clearness.

Dr. Brewer's experience in teaching and in practice has well equipped him for furnishing the student precisely what he needs in the most direct and concise manner. The text will be found to be admirably clear, and illustrations and plates have been used with unsparing hand. The very low price at which the volume is issued will prove an advantage which every student will appreciate. M.

THE INTERNAL SECRETIONS AND THE PRINCIPLES OF MEDICINE. By Charles E. dr M. Sajous, M. D. Fellow of the College of Physicians of Philadelphia; member of the American Philosophical Society, the Academy of Natural Sciences of Philadelphia, etc. Vol. I. With forty-two illustrations. F. A. Davis Co., publishers, Philadelphia, Pa. 1903.

The author has undertaken a work, of which this is the first volume, that invades a field practically unexplored except by the physiologist. To quote from the preface, he says: "Our inquiries seem to have shown that the adrenal system is the source of the secretion which, with the oxygen of the air forms the oxidizing substance of the blood-plasma. It has also revealed, we believe, the origin and mode of distribution of the bodies with which this oxygen directly or indirectly combines, that is, peptones, myosinogen, fibrinogen, hemoglobin and myelin, to insure the continuation of life and the efficiency of all organic functions. Finally, it has suggested that in addition to these agencies, all leucocytes and, under certain circumstances the plasma, contain a protective agency, trypsin, which, with Metchnikoff's phagocytic cells, serves to destroy micro-organism and convert their toxins and other albuminoid poisons into harmless products. Considered jointly, these various factors seem to us to represent the aggregate of vital phenomena."

Students who are investigating internal secretions and their relation to physiologic conditions will find this work a very great aid to them. M.

"ANALYSIS OF THE SEXUAL IMPULSE—LOVE AND PAIN—THE SEXUAL IMPULSE IN WOMEN." Third volume in series, "Studies in the Psychology of Sex." By Havelock Ellis, L. S. A. (England); Fellow of the Medico-Legal Society of New York and Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; general editor of the Contemporary Science Series since 1890. Extra cloth, $2.00, net, delivered. Sold only to physicians, lawyers, clergymen, advanced teachers and scientists. Philadelphia, Pa. F. A. Davis Company, publishers, No. 1914-16 Cherry street.

This volume of studies deals with some of the most essential problems of sexual psychology. The author maintains that unless we comprehend the exact process which is being worked out beneath the shifting and multifold phenomena presented to us in the sexual impulse, we can never hope to grasp in their true relations any of the normal or abnormal manifestations of this instinct.

In one of the studies the author discusses love and pain in its various aberrations and relations to the sexual impulse. The next study is the sexual impulse in women.

The work is a peculiar one and possesses some considerable degree of merit.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS, comprising the years' progress in medicine and surgery, issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Year Book Publishers, 40 Dearborn street.

Vol. V is devoted to obstetrics and edited by Reuben Peterson A. B., M. D., Professor of Obstetrics and Gyencology, University of Michigan. April, 1903. Price, $1.25.

Vol. VI is devoted to general medicine, edited by Frank Billings, M. S., M. D., head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, M. D., Professor of Medicine, Chicago Clinical School. May, 1903. Price, $1.50.

Vol. VII is devoted to pediatrics and orthopedic surgery, edited by Isaac A. Abt, M. D., Assistant Professor of Medicine, Rush Medical College, and John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Northwestern University Medical School. June, 1903. Price, $1.25. M.

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioners' Index. 1903. E. B. Treat & Co., 241 W. Twenty-third street, New York City, N. Y. Price, $3.00.

With this issue the Medical Annual reaches its tewnty-first year. In its maturity there is much about it for which its promoters may be proud. Year after year this publication has grown in favor with the profession. It presents the facts that have been established in the various branches of medicine without arguments and conclusions of the various authors. The aim has been to condense and elucidate the conclusions of different writers.

The contents give a summary of the years' work in the following subjects: A General Review of Therapeutics, X-Ray, etc., in Medicine and Surgery; Electro-Thereapeutics, General Review of Medicine and Surgery, Dictionary of Treatment, Surgical Treatment of Cirrhosis of the Liver, Diseases of Egypt, Diagnosis of Hip Joint Affections, Sanitorium Treatment of Pythisis, Radiography of Urinary Stone, Sanitary Science. M.

STARR ON NERVOUS DISEASES. A Treatise on Organic Nervous Diseases, by M. Allen Starr, M. D., Ph. D., LL. D., Professor of Diseases of the Mind and Nervous System in the College of Physicians and Surgeons (Medical Department of Columbia University), New York; Consulting Neurologist to the Presbyterian Hospital, St. Vincent's Hospital, St. Mary's Hospital for Children, etc. In one octavo volume of 742 pages, with 275 engravings and 26 plates in colors and monochrome. Cloth, $6.00; leather, $7.00, net. Lea Brothers & Co., publishers, New York and Philadelphia, 1903.

The investigations and discoveries in neurology during the past ten years have made the diagnosis of nervous diseases less difficult and more exact, so that it is now possible to trace any symptom presented by a patient to some disturbance of function in a definite nerve center or nerve tract. And as the knowledge of these centers and tracts has grown, as their location and action have been made clear, the meaning of symptoms previously perplexing has become plain. Accuracy of diagnosis has led in turn to precision in treatment, and especially to the application of surgical measures for the relief of diseases formerly considered incurable. There are few departments of medicine in which more remarkable progress has been made than in neurology, and there is none that lies so openly on the borderland between medicine and surgery. The surgical successes in the treatment of nervous affections are among the most brilliant of recent achievements in this domain.

The sections on treatment are exceedingly rich; every page shows the immense amount of study necessary for its preparation, and yet the entire work is written in a style which invests with real interest what is at best a most intricate subject. The publishers have done their part well, and the superb series of engravings and plates harmonize well with the author's admirable text. M.

VEASEY'S OPHTHALMOLOGY. A Manual of Diseases of the Eye. For students and general practitioners. By Clarence A. Veasey, A. M., M. D., Demonstrator of Ophthalmology in

Jefferson Medical College, Philadelphia. 12mo. 410 pages, with 194 engravings and 10 full-page colored plates. Cloth, $2.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

As an authoritative and convenient manual of practical ophthalmology, this new work by Dr. Veasey is likely to prove a favorite. It is written for students and general practitioners, two classes of medical readers who should assuredly be or become familiar with all that is contained in this attractive little volume. The author has shown excellent judgment in what to include and what to omit—a very important matter for the reader. He has been guided in this by his experience both in teaching both under-graduate and post-graduate students, and this same teaching ability is manifest in the systematic, practical and concise manner in which he has marshalled and presented his facts.

The publishers have done their part by giving the book a handsome dress, embellishing it with nearly 200 engravings and 10 full-page colored plates, and, withal, issuing it at a very moderate price. M.

THE BUCKEYE DOCTOR. A Tale for Physicians and for Physicians' Patients. By William W. Pennell, M. D. The Grafton Press, New York. 1903.

This is a very readable story of the ups and downs of a young physician in some localities. The reader will recognize many phases of the trials of a young physician exemplified in the character of this sketch. The moral is good. M.

THE COLUMBUS MEDICAL JOURNAL.

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WATER BORNE DISEASES.*

BY JOHN H. J. UPHAM, A. M., M. D.,

Professor Adjunct to the Chair of the Theory and Practice of Medicine, Starling Medical College, Columbus, Ohio.

The fact that disease could be spread by impure drinking water has been known almost since men began to form towns and cities for habitation, as has also the knowledge that in the vicinity of such communities the water supplies become universally polluted. This knowledge was entirely empirical, a post hoc observation, but was so well established as to cause the imperial Roman, with sublime disregard of cost, to erect great aqueducts for the conveyance of water from sources sixty or eighty miles away. It is, however, only in our own time that the manner in which water acts as a conveyor of disease has been discovered; possibly much remains to be yet found out, but be this as it may, sufficient has been unquestionably proven to enable the medical profession to demand for every community in this country a pure water supply as *the* requisite, *par excellence*, for the maintenance of public health, and to show how this may be obtained.

The term pure as applied to drinking water is ordinarily used rather vaguely and practically only in a relative sense; no natural drinking water supply is ever absolutely pure; numerous substances in solution in small quantities have long been recognized as harmless, and standards of purity have been established by which a water may be classed as pure or potable if it does not contain such ingredients in amounts sufficient to produce deleterious effects upon the human system. More recently, and of greater importance, the bacteriological investiga-

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*** Read before the Columbus Academy of Medicine, September 7th, 1903.**

tions demand a freedom from pathogenic bacteria, no matter what the chemical examination may show. Thus potable waters may differ considerably in their chemical analyses and be equally harmless; one may contain relatively large quantities of inorganic salts, as in our own "hard" water, another may be almost lacking in the same, as in "soft" waters, while another still may contain considerable vegetable matter in solution and rather contrary to the ordinary view, yet be classed as pure.

Water too strongly impregnated with such ingredients is naturally distasteful to man and is therefore avoided. It is the water contaminated by the products of decomposition, usually of human or animal origin, that plays the role of disease carrier; water that may be tasteless and odorless, appearing clear and sparkling, and yet carrying with it possibilities of the most direful character.

To one accustomed to drink as a rule either hard or soft water, the change to the other variety may cause temporary slight intestinal disturbances, soon subsiding as the individual becomes accustomed to the change. Practically the inorganic constituents in the ordinary water supplies do not give rise to any trouble, although it has been claimed that certain waters have some bearing upon the etiology of goitre, but this has never been substantiated and is considered doubtful at present. It is true the inhabitants of certain localities, notably in Switzerland, where the water is almost universally hard, suffer with extraordinary frequency from goitre. Even certain wells in western France and Switzerland have such a local reputation for producing this condition that many unpatriotic young men resort to drinking the water therefrom for the purpose of bringing about the enlargement of the thyroid and thus escape from the compulsory military service. Among the supporters of this alleged action of hard water there has been much difference of opinion as to which inorganic substance or substances play the supposed part, and chemical analyses of the suspected varieties have only led to increased confusion. The most recent investigations seem to point to an organic cause, possibly an amoeba, but this remains to be proven.

As has been stated, it is the organic additions to our drinking waters that constitute the dangers of an impure water supply.

The majority of these are not of very great danger in themselves; they may occasionally cause a diarrhea if used over a considerable period of time, or lower the general health tone, but do not directly produce specific diseases. Such compounds are, however, of great value to the sanitary officer in deciding a question as to whether a water is potable or not by acting as an indicator of contamination, in that if unusual amounts of ammonia, nitrites, etc., be found present, far more harmful bodies are also present or may appear at any time.

In cases of very great pollution there may be imparted to the water not infrequently an odor or taste which making it distasteful, warns against the drinking thereof. In the majority of instances, however, this is not true; the water may be clear as crystal, cool and sparkling, tasteless and odorless, to all appearances the most harmless of beverages and yet chemical analysis show organic compounds, especially ammonia and nitrites, in sufficient quantities to indicate the fact of sewage contamination, and therefore not onlv the possibility but the probability of the presence of the real disease producers, the pathogenic bacteria. The number of species of the latter that may thus be introduced into the human system is fortunately limited so far as our present knowledge goes, and the chief of these are, the bacillus typhosus, the comma bacillus, and the bacillus dysenteriæ. Others, such as the Klebs-Loeffler bacillus, the spirochetæ, the plasmodium malariæ, the ameba coli, etc., have been supposed to be conveyed by the same means, but with the exception of the last named such transmission is now discredited.

The bacillus typhosus is to us personally at the present time by far the most important of the above. This organism is so widespread that practically all of our water supplies are more or less contaminated by it or subject to such contamination, and typhoid fever is one of our most common and most dreaded diseases. The manner in which it is conveyed by drinking water is indisputable and too well known to be commented upon. The classic epidemic at Lausen, Switzerland, in 1872; that at Plymouth, Pa., in 1885, and that at Ashland, Wis., in 1893-4, would alone serve to establish the facts if we were not constantly seeing additional evidence. What are regarded as proofs in support of a theory in scientific investigations might not always be accepted in court of law, yet in the Ashland epidemic a plaintiff recovered $5000 damages from the local water company, so clearly was it demonstrated that the water supply was the responsible agent in the introduction of the disease in the case in question. In regard to the transmission of typhoid fever we may paraphrase Huxley's famous "omne vivum ex vivo," and say every case is from a pre-existing case, and therefore if the organisms could be all destroyed as they left the first patient the disease could be readily stamped out. The difficulties of such procedure are, however, at present insurmountable. We do devote considerable attention nowadays to the disinfection of the stools of a patient sick with the disease; even the laity are pretty well alive to the necessity of this measure, but the urine is not always as strictly looked after as it should be. In reality the latter is the more dangerous of the two, for while the bacilli early may be found in large numbers in the feces, they practically disappear about the end of the third week, while in the urine they do not appear until about the end of the second week, but remain often in extraordinary numbers throughout convalescence and sometimes for weeks or months thereafter; a fact alone constituting at present a practically uncontrollable factor in the spread of the disease. Even then if it seems so difficult or impossible to prevent infection of sewage, theoretically at least it would seem not so great a task to stop the pollution of our water supplies by such infected sewage and thus prevent the introduction of the bacilli into fresh victims. This practically, however, constitutes one of the greatest tasks of sanitary science; the sources of such pollution are so widespread, and so difficult to control that it is wiser to consider all of our sources of supply as probably infected. Persistent effort, expenditure of large sums of money, protecting the streams, and widespread education of the masses may in time lead to the solution of this great problem.

Some authorities will not condemn a water for drinking purposes unless the typhoid bacillus be absolutely demonstrated by cultures; this is not always an easy matter, as the organism is not very tenacious of life, may disappear at times, and its recognition requires careful work, in which if an error occurs it may prove a very costly one. Others wishing to make allowances for the above, advise as an indicator to test for the presence of the colon bacillus, as if it be found the typhoid bacillus may also be present or may at any time be added through the same channel through which the former gained admittance. This, too, is not entirely safe, as urine contamination alone might introduce great numbers of the typhoid organisms without any colon bacilli whatever. Still others, to be on the safe side, condemn all water containing any excess of the normal quantities of ammonia, nitrites, etc., as showing sewage contamination and therefore the possibility of at any time the presence of the bacillus typhosus. The wisest plan of all, in the summer and fall at least, is to consider all drinking water supplies as they treat a suspect under arrest on the continent, as guilty until proven innocent, and probably guilty even then. Let all proper precautions be taken to protect as much as possible the sources of a supply from pollution, but not to be lulled into a false security thereby. Admit the presence of the organism at the intake and then direct our energies to its removal before it reaches the drinking vessel of the consumer.

Filtration on a large scale unquestionably is a long step in this direction, as witness the tables given by Harrington of the changes in the death rate from typhoid fever in thirteen New England cities after the installation of such plants, the average decrease being nearly fifty per cent. People need protection against their own heedlessness and recklessness, and such municipal measures should by all means be taken for the good of all, but at the same time, or in the meantime, the masses should be educated to the wisdom, if not the necessity of boiling or filtering the water themselves, or both, and thus make assurance doubly sure.

The comma bacillus is analogous to the typhoid bacillus in most respects and is conveyed from patient to patient by precisely the same means. The organism is not, however, at large in this country; if at any time a cholera patient is brought to our shores, the quarantine measures and the strict disinfection of all excreta from the patient, prevent the contamination of the water supplies and hence prevent the spread of the disease. The disease is more virulent than ordinary typhoid fever; and so the public are more alive to the danger therefrom, and therefore are willing to submit to harsh measures if necessary for their own protection. Unquestionably if anywhere near the same strict means were applied to regulating typhoid fever patients, in time that disease would also be completely stamped out.

The bacillus dysenteriæ, discovered by Shiga but a short time ago, is growing rapidly in importance. Our knowledge of dysentery is in rather a nebulous condition just at present; we know of an amebic form usually a more or less chronic disorder, and mostly confined to the tropics, and we are hearing more and more of a specific form of the disease caused by the bacillus of Shiga, originally supposed to come from tropical countries, but of late found not infrequently in this country. This organism may be transmitted by exactly the same means as the above mentioned, and is capable of causing at times widespread and very fatal epidemics, and again at other times merely mild diarrheas, the latter fact rendering it exceedingly difficult to control.

The recent reports of Mason and Knox of Baltimore have considerable significance in this connection. Working in a hospital for children, they have made a special study of the summer diarrheas of infants and found in a series of forty odd cases all presenting the familiar clinical picture of that distressing and so often fatal condition, one organism constantly present and apparently the causation agent of the disease. This organism after thorough testing they consider to be apparently identical with the bacillus dysenteriæ.

In twenty-six out of twenty-eight cases of bottle-fed babies whose histories could be traced, unboiled city water was supplied between feedings, and in two that were breast fed, unboiled water was given between nursings. Unquestionably organisms were administered in the drinking water in the last two instances, and either in the drinking water of the others, or by means of water added to the milk for the purpose of adulteration or modification. These facts need further investigation, but sufficient has been shown to make this organism of great importance and interest.

CHEMICAL ANALYSES OF THE PRESENT PUBLIC WATER SUPPLY OF THE CITY OF COLUMBUS, OHIO.*

BY ELMER G. HORTON, B. S.,

Bacteriologist and Chemist to the Ohio State Board of Health.

In THE COLUMBUS MEDICAL JOURNAL for July, 1903, appeared the average of the chemical analyses of the Columbus hydrant water obtained from samples taken at irregular intervals during a period of over three years prior to May 1902. While that average was not made up from daily analyses we believe it may be taken as fairly representing the character of the present public supply of Columbus.

The average analysis referred to, with the maximum and minimum findings for each determination is here repeated, and there is added the average of all the chemical analyses from the laboratory of the Ohio State Board of Health up to September, 1903.

COLUMBUS WATER SUPPLY—PARTS PER MILLION.

(Prior to May, 1902.)

	Minimum.	Maximum.	Average.	Present Average.
Physical Properties:				
Color	12.	40.		24.
Turbidity	Trace	150.		X
Sediment	Trace	Decided		X
Odor	None	Decided		X
Oxygen required ..	2.02	8.96	4.10	4.42
N. as albuminoid am	.074	.300	.165	.180
N. as free ammonia.	.006	.042	.027	.041
N. as nitrites.......	Trace	.070	.007	.006
N. as nitrates.......	Trace	6.40	1.71	1.67
Chlorine	5.4	15.1	9.4	9.0
Alkalinity	161.	267.	212.	217.
Incrust'g constitu'ts.	73.	232.	152.	156.
Total solids	473.	905.	662.	651.

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* Read at a meeting of the Columbus Academy of Medicine, September 7th, 1903.

Analyses in the last sixteen months have reduced the minimum findings for oxygen required and chlorine to 1.97 and 4.6, while the maximum findings for N. as albuminoid ammonia, N. as free ammonia, and the incrusting constituents have been raised to .302, .078 and 255. respectively.

Considering the physical properties, we find the color is not a factor of any moment, for it is not high. It might be mentioned that the color appears to be slighfly increasing since each successive annual average has been higher than the preceding one.

This water usually has an odor, either earthy, or vegetative, or both, but it is not generally present in sufficient amount to be very objectionable, although there have been times when it was displeasing.

The turbidity, or lack of clearness, due to matters in suspension, and the sediment resulting when they are cast down are considerations of much greater moment, for they are very objectionable features at times, and deserve especial attention because they are the objections readily apparent to the eye of the consumer. The most important substances in this connection are the iron and the suspended soil, the one coming chiefly from the east side, the other from the west side pumping station. With iron in our east side ground water, and with Alum creek and Scioto river furnishing a portion of our supply, it is out of the question for us to hope to have a clear and pleasing water unless some method of treatment is employed. Probably more complaints arise from our citizens on account of the appearance than because of any other feature connected with the water itself. The turbidity and sediment may be entirely removed and the odor and color improved by proper treatment.

Passing to the more technical portion of the analyses we have in the albuminoid ammonia and oxygen required two findings that show us best the amount of vegetative organic matter present. To be sure they may be influenced by sewage, but that is lost sight of here by the greater variations due to vegetative matter. From the best information at hand, it can be said that the ground water portion of our supply ought to run considerably under .100 for albuminoid ammonia, and not much over 2. parts per million of oxygen required, yet three and even four times these amounts are shown by some of our analyses of the hydrant water. The evidence is plain. Unfiltered river water has been admitted in greater or less quantity to that supply for years.

While a chemical examination is not as useful in determining the danger point of a pollution as the bacteriological, yet we have in the findings for free ammonia one of the best chemical indicators of sewage pollution in the Columbus supply. The average amount has not been so high, but the findings have shown considerable fluctuation, and it is worthy of mention that our yearly averages for free ammonia have increased during the past five years with the present year the highest, viz., a fraction over .041 parts per million.

Omitting technicalities, it may be said that the presence of nitrites represents an incomplete purification, and authorities agree that nitrites should be absent in a good water. Nitrites in small amounts are nearly always to be found in the Columbus water and sometimes the figures creep up. Therefore the Columbus water is not a good water, but on the other hand we all know it is not bad all the time.

The chlorides and nitrates of the Columbus supply represent "past pollution," i. e., a pollution that has been purified by natural processes, and yet I would not have you think that the danger in our public supply can be gauged by the findings for chlorine and nitrogen as nitrates. Variations from a trace to 6.40 parts of N. as nitrates, and from 4.6 to 15.1 for chlorine, are wide fluctuations in a public supply and are to be accounted for through our combination of sources. These factors vary in an inverse manner from the oxygen required and albuminoid ammonia, for, in general, the river water is high in the latter and the ground water is low, while the reverse is true for chlorides and nitrates. Accordingly the chlorides and nitrates decrease with the addition of river water and increase when it is kept out.

Æsthetically we may not like chlorides and nitrates to be present in our supply, because of what they once meant, but of themselves they are harmless in these amounts. Their greatest value is that they are signboards pointing out the danger of allowing the further encroachment of man on the territory drained by our wells, filter galleries, or conduits, provided we desire to continue drawing a portion of our supply from the ground of the present location. For with the encroachments of men there will come a day when nature will not complete the process of purification before the water enters the pipes of the system—and then there will be trouble.

The total solids include the dissolved mineral portion of the ground and river waters plus the suspended mud, silt and vegetation of the river water. These solids are high—so high as to pass the permissible limit of a potable water as given by some writers—yet we continue to use the water.

In the determinations for alkalinity and incrusting constituents we havea measure of one of the worst features of our supply and one that we may well dwell on for a few moments. I refer to the hardness. Yes, you say you know it is hard, and indeed it is hard, but let me say, gentlemen, that probably most of you do not realize how hard the water of the Columbus supply really is. Is it not true that nearly, if not quite every one of you, has soft water plumbing in his house—and your acquaintance is with that soft water?? But how about the poorer half of Columbus homes without the soft water plumbing? Ask those people or the manufacturer who uses the city water for boiler or commercial purposes how hard the water is. Even they, by having become accustomed to its use, lose sight of its full hardness. It is said the Ethiopian does not know how hot it gets in Central Africa. It takes a white man to feel the effects of that climate. So it takes the newcomer to our city to feel the hardness of our water. While most of you are aware that Ohio contains many hard waters, do you know that citizens may come to this capital city from almost any place in the state and find fault because our water is harder than theirs. Such ought not to be the case. Columbus ought not to have one of the hardest waters in a hard water state.

The *alkalinity* represents the carbonates and bicarbonates of lime and magnesia, while the *incrusting constituents* include the sulphates and chlorides of lime and magnesia. Our chief incrusting constitutent is $Ca\ SO_4$, and it does from a boiler scale that is a nuisance. When you find a water reaching a maximum of 267 alkalinity and 255 incrusting constituents you have a water that never should be inflicted on any Ohio city for a public supply. Gray,[1] in collecting information three years ago for his report on an improved water supply for our city, computed the annual waste of soap alone to be approximately 80 cents per person on account of the excessive hardness of our water, compared with a water of 40 parts per million hardness. On a basis of a population of 125,000 this soap wastage amounted to $102,200 annually. To this amount he added another $100,000 wastage along culinary lines and nearly $19,000 spent in running motors for soft water plumbing, making an actual cash loss of $221,000 for 125,000 people. And Mr. Gray also figured that that extra hardness could be removed from the entire supply for the same population at an annual cost of $50,000. Losing $4 to save $1 is not exhibiting good business sense, to say the least. But please note further that yearly loss was cumputed on a total hardness of 250 parts per million of which 40 were to remain. That figure of 250 came from the available information as to the character of the Scioto river. Now, in the light of present available data, we find the average total hardness of the present supply to be over 350 parts, giving upwards of 300 parts to be computed on instead of 210. Therefore, our annual hard water cash loss would have been over $300,000 for 125,000 people—and besides, we have been growing a little the past three years.

There are four points revealed by a study of the chemical analyses of the Columbus supply, that it might be well for every citizen to remember:

1. Evidence of sewage pollution.
2. Indications that the amount of pollution is on the increase.
3. An unsatisfactory and displeasing water in its appearance.
4. An excessive hardness.

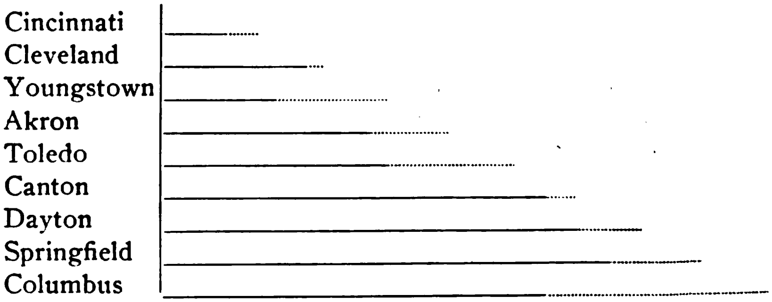
The first two may be better handled in connection with a bacterial consideration of the supply, but let us in conclusion see how we rank in appearance and hardness among the nine largest cities of Ohio. We will refrain from bringing greater shame on our city by a comparison with the supplies of other cities located outside of this state. If you should be interested in that subject, I might refer you to Gray's report, where he gives the permanent hardness of Columbus water along with seventeen other cities, and it is about 50 per cent. higher than any of the others.

How does our water rank in appearance? Canton, Dayton, Springfield and Akron are above us as regards a clear supply. In a few weeks Cleveland will draw water from her new intake 4 miles out in Lake Erie and she will be above us. Cincinnati and Toledo are below us with notoriously muddy waters, but both cities have taken steps that will insure clear waters in the near future and we will then have to take off our hats to them while they drink. Definite analytical information as to the appearance of the present Youngstown supply is not at hand, but it is probably in the same class with ours and thus in appearance we are likely to be at the foot of the list, although resting temporarily above Toledo and Cincinnati.

The hardness comparison I give you in tabulated form and also graphically expressed. There I remember this is an occasion when "speech is silver but silence is golden."

HARDNESS OF PRESENT PUBLIC WATER SUPPLIES.

	Alkalinity.	Incrusting Constit'ts.	Total.
1. Cincinnati[2]	45	33	78
2. Cleveland (approx.)	90	10	100
3. Youngstown[3 and 4]	68	62	130
4. Akron[5 and 6]	114	low	130-150
5. Toledo	154	67	221
6. Canton	233	17	250
7. Dayton	263	18	281
8. Springfield[7 and 8]	270	57	327*a*
9. Columbus	217	156	373



a. Probably too high owing to limited number of examinations with samples collected during summer and early fall.

REFERENCES.

1. Gray. Report on the Improved Water Supply of the City of Columbus. 1901; p. 27.

2. Fuller. Report on Investigation of Water. 1899, Cincinnati.

3. Snow and Barbour. Report on an Improved Water Supply of the City of Youngstown. 1899; p. 16.

4. Lord. Examinations of Sources of Public Water Supplies. Ohio State Board of Health. 1898; p. 65.

5. Bleile. Sixteenth Annual Report of Ohio State Board of Health. 1901; p. 136.

6. Laboratory Records Ohio State Board of Health.

7. Howard. Tenth Annual Report of Ohio State Board of Health. 1895; p. 98.

8. Laboratory Records Ohio State Board of Health.

MEDICAL SOCIETIES MEET.

The thirteenth annual convention of the American Electro-Therapeutic Association is be held in Atlantic City, N. J., September 22, 23 and 24, 1903.

The annual joint meeting of the Northwestern and Ohio Central Medical Societies was held at the Park hotel September 2, 1903.

The following papers were read: "Summer Diseases of Children," by Dr. R. W. Sharp, of Buckland; "Asthma," by Dr. W. S. Cole, of Columbus; "Obstetrical Experiences," Dr. B. K. Jones of Kenton; 'Sanataria," Dr. W. E. Postle, of Shepard; "Signs of Approaching Death," Dr. A. P. Taylor, of Columbus, and a talk by Dr. W. P. Gemmill, of Forest. The societies held a banquet at the park hotel at which Dr. George W. Beem, of Hilliards, acted as toastmaster. The next meeting of the societies will be held in Kenton.

"BACTERIOLOGIC ANALYSIS OF PRESENT WATER SUPPLY."*

BY H. C. FRAKER, M. D.,

Bacteriologist to City Board of Health, Columbus, Ohio.

More is usually expected from bacteriological analysis of water than can be realized. If I tell you that our hydrant water contains intermittently colon bacillus I give you about all of our definite knowledge of the bacterial flora of our hydrant water. Formerly it was thought and taught that excess above a certain number of bacteria per cubic centimeter indicated pollution. This was abandoned as knowledge of the nature and specifity of bacteria grew.

An enumeration of the forty to fifty varieties usually found in slowly-runing water would add but very little to our knowledge of the results upon the quality of our drinking water.

The bacterial examination of water at present is narrowed down to the determination of the presence or absence of those that indicate pollution of the water in question by the discharge of intestinal contents either human or animal into the water before it reaches the consumer. The well-known difficulty attendant upon the detection of the presence of a limited number of typhoid bacillus in water practically puts this bacillus out of the question in the determination of the fitness or unfitness of large quantities of water for use.

The ease with which the presence of the colon bacillus may be detected, coupled with the fact that it is invariably derived from the intestinal canal, makes this bacillus the prime and practically the only bacterial evidence of dangerous pollution of drinking water that we possess.

The presence of this bacillus in conjunction with the presence of clinical typhoid fever justifies the warning given by the Board of Health to boil all drinking water.

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* Read before the Columbus Academy of Medicine, September 7th, 1903.

WHAT IS OUR PRESENT WATER SUPPLY?*

BY SUPERINTENDENT O'SHAUGHNESSY.

Mr. Jerry O'Shaugnessy, superintendent of the Columbus Water Works, by invitation addressed the Academy and reviewed briefly the development of our present water supply system. He stated that the first active steps to secure a public water supply were taken in 1870, when the West Side pumping station was erected, which derived its supply from a brick well with an inside diameter of 20 feet, 22 feet in depth, with a brick subway or conduit from the well to the middle of the Olentangy river. The conduit, which was of brick, five feet in vertical height by four feet horizontal, had openings at the side one foot apart for the free admission of ground water. The conduit and well system, as first constructed, was 256 feet in length. Four years later, a basin about 150 feet in diameter was excavated adjacent to the east side of the station and a slow sand filter having an area of about one-fifth acre was operated for a short time. The conduit system, however, was the main reliance, and this was extended up along the north bank of the Scioto river, until in 1879 a direct connection was made with that stream about one mile above the pumping station.

Other brick conduits were built in 1883 and 1884, and in 1897 a cast-iron conduit, 42 inches in diameter was laid under the direction of Mr. Jacobs as director of public improvements. The Jacobs conduit was three feet lower than the old conduits, and was intended to duplicate the brick conduit so as to afford a certain supply in case of accident by cave-in to the old conduit. In addition, wells, thirty-four in number, six inches in diameter, were driven along side of the new conduit, which somewhat increased the supply by flowing into the same.

In 1889, an investigation was made of the Alum creek valley and it was thought an abundant supply of water could be obtained from that source, as wells were found over quite a large area which delivered continuous streams of flowing water at an elevation of eight feet above the surface of that stream. A brick well twenty-five feet in diameter, sixty-six feet deep, was first constructed, and to this a little later, thirty-two driven wells were connected. These wells since 1891 have furnished an average of about six million gallons daily, but for a supply in excess of about twelve million gallons daily, it has been necessary to draw surface water from the Scioto river or Alum creek, one or both streams, by direct intake. The present requirement of the city is about seventeen million gallons per day. It will thus be seen that our present system is inadequate. The system of ground water supply has been found unsatisfactory and inadequate at other places where it has become necessary to supply a large population.

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*Read before the Columbus Academy of Medicine, September 7th, 1903.

Indianapolis has tried the experiment. Beginning in 1870, they first constructed a pumping station at Washington street bridge, drawing their supply from the canal. The water, however, not being satisfactory in quality, they purchased in the course of time from many persons a large acreage along the river and inaugurated a driven well system at their new Riverside station, and as the ground level was gradually lowered by the heavy pumping, they introduced the air lift. The level of the ground water was continually lowering and the cost of pumping continually increasing, until they were burning 120 tons of coal per day in pumping their water supply, for a city of about the population of Columbus.

Having thus proved the failure of the driven well system for a large population, they are now preparing to obtain their supply from surface water from the canal, which is to be filtered by the slow method.

The question of an adequate supply for Columbus has been considered at different times by four eminent engineers and water supply experts, namely, Hering, Schuyler, Hazen and Gray, who have been unanimous in their recommendation of the storage dam in the Scioto river to furnish the best supply of water for this city.

The filtration and softening of the water should be added without delay as soon as an adequate supply has been impounded. It can be proved that from a commercial standpoint, softening of the water would be a large saving to the city in addition to the great convenience and comfort to our citizens.

The softening process can be had most economically in connection with the filtration and the two processes should be combined.

With reference to the recent scarcity of water, the situation has not been alarming, but each season in the time of dryest weather the supply runs low, and about one-third of the water then used comes direct from the Scioto river.

Mr. O'Shaugnessy stated that no one could estimate with precision how long our water supply would hold out, but the need for the construction of a storage dam is urgent, and the purification of the supply when obtained is not less important.

In reply to a question as to the safety of such a dam, he said there could be no manner of doubt on this point, and especially if our present city engineer, Mr. Griggs, has the direction of the work of construction.

With reference to the capacity of the reservoir, he stated that a dam thirty feet high would impound about 1,600,000,000 gallons, and a dam fifty-two feet high would store over 5,000,000,000 gallons.

On September 9 the members of the Muskingum County Medical Society elected the following officers for the ensuing year: Dr. C. U. Hanna, President; Dr. A. M. Templeton, Vice-President; Dr. W. F. Sedlover, Secretary, and Dr. C. P. Seller, Treasurer. During the last year the society adopted the constitution and by-laws recommended by the American Medical Association, and State Society.

The annual state examination for entrance to Ohio medical colleges will be held September 25 and 26 at Columbus, Cleveland, Cincinnati and Toledo, that at Columbus occurring at the Central High School building.

THEORY AND EFFICIENCY OF FILTRATION.*

BY R. WINTHROP PRATT,

Engineer Ohio State Board of Health, Columbus, Ohio.

In the filtration of impure water, the principal objects to be attained are:

First. The removal of the bacteria and of the organic matter which to a large extent nourishes them.

Second. The removal of all substances which injure the appearance of the water or tend to make it unfit for household use; such as color, odor, taste and turbidity.

The removal of hardness is strictly a chemical process, but the water after being treated with chemicals may be passed through sand or coarser filtering material to obtain clarification. Similarly the removal of iron is a chemical process (usually simple oxidation) followed either by sedimentation or by the straining out of the suspended matter by passing rapidly through filters.

There are two main principles upon which city water supplies are filtered, both of which use sand as the filtering medium. With one, the English, or slow sand filtration method, no chemicals are used and the water is filtered slowly; while with the other, called the American, rapid and mechanical method, chemicals are used in order to precipitate the impurities, and the water is filtered rapidly. Combinations of the two methods are sometimes used.

SLOW SAND FILTRATION.—In the light of our present knowledge this is the method which is especially adapted to the purification of waters which are sewage polluted, but which are low in turbidity and color. In this system the water is passed through beds of sand, about four feet in depth, at a rate of 2,500,000 to 4,000,000 gallons per acre per day or sixty to one hundred gallons on each square foot per day. These beds are from 0.5 to 2 acres in extent and covered, if necessary, to protect them from freezing in winter. It is stated that places having mean January temperatures below the freezing point require covered filters.

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* Read before the Columbus Academy of Medicine, September 7th, 1903.

Sand filters were used in England as early as 1829 in purifying the water supply of London, but at that time and in fact until about 1890, the theory of filtration was not understood although filters were used considerably. It was thought that the action was entirely a mechanical straining out of the impurities as the water passed through the sand. It was not until the discovery of bateria in water and of their relation to health that the real action and importance of sand filtration was thoroughly understood. Experiments in Germany, England and this country showed that biological and chemical actions took place in addition to the straining out of the suspended impurities. It was found that the deposit of fine silt and slime which gradually forms upon the surface of the sand as a filter is used, serves as an extremely fine filtering medium which intercepts all suspended matter and nearly all bacteria in the water. This is called by the Germans "Schmutzdecke," and in this country dirt cover, sediment layer, gelatinous film, etc. As the layer increases, enormous numbers of bacteria accumulate in it and perform the very important service of transforming a portion of the organic matter of the water into harmless mineral matter. This film is not wholly on top, however, but extends through the whole depth of sand; coating each grain and serving to retain some of the bacteria that pass by the surface.

It is found, as might be expected, that the longer the filter is used the better the purification; but after a time the sediment layer becomes so thick that it seriously reduces the quantity of water which can be passed through and then the filter must be cleaned. This is done by carefully scraping off the top layer, which is washed and put back.

Though good purification may be obtained with a much smaller depth than four feet, it would not be safe to have less than this on account of the liability of the pressure of the water to form channels through the sand which would admit unpurified water to the underdrains.

MECHANICAL FILTRATION.—If a coagulant be introduced into the water considerable purification takes place before passing it through the sand and therefore much higher rates, or in other words, much less sand may be used.

Alum or sulphate of alumina has so far been found to be the best coagulant. Upon the application of this, hydrate of alumina is precipitated and the precipitate entangles the suspended matter, forming over the top of, and all through the body of the sand filter, a gelatinous film which serves the purpose of the naturally formed sediment layer of the slow sand system. Rates 30 to 50 times as great are used in this system as are used in the former, but the sand must be washed much oftener; this is done without removing the sand by the use of mechanical devices for stirring it up and passing water through in a reverse direction.

EFFICIENCY.—The most important factor we can use in forming our judgment of the workings of filters is their bacterial efficiency, based on the ratio between the bacteria in effluent and bacteria in raw water. This figure must, however, be considered in connection with the other facts in order to obtain its full value.

The percentage removed as shown by it is probably less than the percentage of bacteria actually removed from the original water for the reason that there is a considerable bacterial growth in the underdrains which increases the number in the effluent. Moreover, the importance of this test rests on the assumption that disease producing bacteria are reduced in the same proportion as the total number, whereas the truth of this assumption depends largely upon the character of the pollution of the raw water. Again, for the same percentage removed we may get *actually* a much larger number in the effluent at some time than at others owing to the variation in number contained in the raw water. A better test would be the hygenic efficiency, or per cent. removed of *pathogenic* bacteria.

An important value of the bacterial efficiency test as usually made lies in the fact that it gives a means of determining from day to day whether or not the action of the filter is up to its usual standard.

The question of relative bacterial efficiency of the two systems is one which has been much discussed; but at the present time the opinion of experts seems to be that with proper care, both will give equally good results, provided, of course, that the raw water contains enough alkalinity to thoroughly react with a coagulant. It is certain, however, that much more care is necessary with mechanical than with slow sand filtration in order to obtain uniformly good results and to avoid danger from a sudden increased pollution of the raw water.

Slow sand filtration will successfully clarify waters having a reasonable amount of turbidity and will also remove a large portion of the color if the latter is caused by insoluble matters; but the use of a coagulant is necessary for the removal of excessive turbidity and of color caused by matters in solution.

Odors and tastes are caused usually by organisms and sometimes require æration or the use of chemicals, but in a general way both systems are equally efficient in their removal.

In European countries great care is used in guarding the operation of all filtration works—no large plant being without a trained chemist to make daily analyses. Various arbitrary standards of purity are established by the municipal authorities. In some cases these may not be exact measures of the purification taking place, but they help to maintain carefulness of operation. Maximum allowable rates are also established by law.

As the efficiency depends to such a large extent upon the character of the raw water, rate of filtration, amount of coagulant used, etc., it is very important that careful study be made of each case under all possible conditions. Therefore, in designing purification works for Columbus, where the water requires not only the removal of bacteria, but also of turbidity, hardness and iron, it is not only highly desirable but quite necessary for the proper construction and operation of the future works that a series of actual experiments be conducted by an expert upon the filtration of Scioto river water.

It may be said in closing that the true test of efficiency of filtration is the improvement in the health of communities using the filtered water.

WHAT SHOULD THE PHYSICIANS ADVISE AS TO THE USE OF HYDRANT WATER.*

BY J. W. CLEMMER, M. D.,

Member of the Columbus Board of Health, Columbus, Ohio.

Advice as to the use of tap water for culinary purposes will vary according to the bacteriological and chemical examinations. The degree of pollution will vary according to the amount of rainfall. During seasons of abundant rains, the hydrant water of the city is comparatively good. During drouth, with a low water supply, when the river water is turned into the service pipes, the supply for domestic use is bad. From the examinations made at different times and under varying conditions it is evident that Columbus water is more or less polluted most of the time. It may not be as black as painted by the French savant who visited the city recently, or as bad as claimed by some of our local authorities. In evidence of this, statistics are introduced. The data also show the efficacy of filtering beds for municipal purification.

The death rate in typhoid fever, for the past eight years, in this city, gives an annual average of three deaths in 10,000 inhabitants. Lawrence, Mass., experienced a death rate from this disease of 13 to 10,000 as an average for five years previous to the installation of filtering beds. The average for four years with filtered water was only three in 10,000. This shows that our records in the past eight years without filtration is equal to the experience of the city of Lawrence with filtration. It also shows that filtration reduced the death rate, in that city, for typhoid, from thirteen in 10,000 to three in 10,000, a demonstration of an important fact in favor of municipal filtration.

Who is responsible for the character of our hydrant water? The responsibility, in the very nature of municipal government and individual taxation belongs to the city and not to the citizen. If the public water supply becomes poisoned with disease germs and the mortuary rate becomes abnormally high in consequence, the preventable deaths thus incurred are referable directly to city authority,

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* Read before the Columbus Academy of Medicine, September 7th, 1903.

A polluted water, considered for domestic use, must either be avoided or purified. Now, when you ask the individual to purify the hydrant water, you shift the responsibility from the city to the citizen. The individual has the same right to demand water protection as he has to demand fire or police protection. Water protection will vouchsafe greater interests than can be afforded by the fire or police department. Parks and boulevards are dispensible luxuries, but a pure water supply is an indispensible necessity.

The only correct and efficient way to secure a pure drinking water is for the municipality to fairly assume its responsibility, and furnish either a naturally pure water or to purify the polluted water by a system of storage and filtration. Simple storage for Columbus is not sufficient, if the rivers are to be utilized. Filtration in connection with storage is necessary to insure a pure water.

Purification of the city water should be municipal, not domestic. It is well known that many families will not purify hydrant water, especially if it appears clear. It is a dangerous experiment to entrust a polluted water to domestic purification.

Many citizens use spring water, distilled water or rain water. There are a number of supply houses in the city which fill orders for pure drinking water. If all citizens could thus be supplied, the injunction to avoid the polluted hydrant water might be observed, but we know that this expedient is impracticable.

Private wells are just as impracticable and more hazardous. Drove wells put deep through impervious soil will furnish pure water. Even this statement is questioned by bacteriological authority. At all events well water for the city's use is out of the question, unless the dual system of water circulation is adopted.

Whatever the source of supply, hydrant water must be employed, even for drinking purposes. Since it cannot be avoided it must be purified, so long as it is polluted, as under the present system. So long as the individual is deprived the municpal right to water protection, he must either suffer the consequences of pollution or purify his own water supply. He must act as his own policeman or fireman, so to speak, or see his family suffer the risk of an unprotected water supply.

Three methods of domestic purification are mentioned: Distillation, filtration and boiling. The first has been mentioned as impracticable for general use. The individual has been educated to the necessity of purifying the hvdrant water and a large number of our citizens are either filtering or boiling for drinking purposes. Filtration is useful when properly conducted, but as odinarily employed for drinking purposes is worse than useless. The filter catches all the impurities that were in the water, and if not cleansed and sterilized at regularly short intervals, the sediment collected serves as a medium for the propagation of bacteria. The ordinary filter is deceptive in this: It removes the gross material and renders the water clear, but bacteria follow the filtrate into the drinking cup.

Mr. Elmer G. Horton, bacteriologist to the Ohio State Board of Health, in the Ohio Sanitary Bulletin for April-May, 1903, has this to say:

"A sample of filtered water from the filter in the dining room of a large boarding house was examined and found to contain 20,000 bacteria per cc. On another occasion at the same place the filtered water was found to contain five times as many bacteria as the unfiltered water. A sample from a filter in one of the halls of the Board of Trade building a few years ago contained 2,600 bacteria per cc, or a quarter of a million in a moderate drink. Recently samples of filtered and unfiltered water were taken from a filter in one of the offices at the State House. The 2,200 bacteria per cc of the untreated water had increased to 14,000 in passing through their "germ-proof" filter. Such increases in the number of bacteria in a filter poorly cared for or perhaps with defective fittings is not so surprising when one stops to think. Organic matter collects in the filter and serves as food and there is developed a breeding nest for the bacteria.

"Let it be said that not all domestic filters are bad, for Woodhead and Wood in their excellent investigation of the bacterial efficiencv of domestic filters, reported that three out of twenty-one leading designs on the market were effective in removing bacteria, but the other eighteen were not.

"What then is the true position of the domestic filter? Some few are effective and safe, especially those constructed after the type of the Chamberland-Pasteur or the Berkefeld, but they must be perfect in make with proper fittings, and must be carefully and systematically cleaned or better, sterilized. However, the larger number of domestic filters must be looked upon as a delusion and a snare. They do act as strainers, and so did the flannel bag of our boyhood days."

The last method mentioned of purifying hydrant water is by boiling. It is simple, inexpensive and effectual. This is the only method advised for domestic purification. If the filter is used it should be employed before boiling the water. Sterilization by heat is the final act of purification. Usually nothing else is required. But if the filter must be used, as some people insist, then let it precede the boiling process. From what has been said, the filter, unless it be of an approved pattern and chemically and regularly cleaned, as directed for a nursing bottle, should be relegated to the scrap pile. Practically there is only one thing to advise in the purification of hydrant water, and that is to boil it. Boil the water. Boil the water for at least twenty minutes. Precipitation will remove the suspended matter from the boiled water, if allowed to stand long enough. The flat taste will be improved by æration. This can be accomplished by shaking the water in its container or by pouring it from one vessel into another repeatedly. The addition of a bit of common salt will improve the taste.

With all manner of warning and urging in the matter of purification, there will be a large minority, may be a majority, of the people who will continue to ignore the advice and use polluted water, despite its filth and its danger.

Thus it is. About one-half or two-thirds the people will use hydrant water for drinking purposes, regardless of its character. This fact places the responsibility of water purification with the municipal government, which it cannot avoid.

The medical profession can accomplish much in teaching and urging water purification. Every member of the Academy should make an effort to establish, either domestic or municipal purification, as opportunity presents.

While they advise the consumer to boil drinking water and force the responsibility upon him and his family, they should have this to say to the city authorities: "It is your business and your duty, not as politicians to peek-a-boo with partisan policy and the municipal money bags, but as conservators and promoters of the highest interests of the city, to serve the people with an ample supply of pure water, made possible by physical features, as pointed out by expert authority, and a willing public to pay the honestly incurred bills, made for that end so devoutly to be wished."

THE DEVELOPMENT OF OBSTETRIC SURGERY.

BY JAMES U. BARNHILL, A. M., PH. D., M. D.,

Professor of the Principles of Surgery and Clinical Surgery, Ohio Medical University; Surgeon to the Protestant Hospital; Formerly Surgeon to the Columbus Hospital for Women, Columbus, Ohio.

(Continued from August.)

The most memorable event of the seventeenth century was the invention of obstetric forceps. During this century version which had been practiced to some extent, for the first time met with favor and was very generally practiced. Obstetric forceps, first suggested by Franco in 1576, as already stated, were invented by the Chamberlens—probably Peter, son of William, the latter coming from Paris to London in 1856. In 1616 Dr. Peter Chamberlin was accused before the College of Physicians of boasting that "he and his brother excelled in the management of difficult labors." For three generations the Chamberlens succeeded in keeping secret the nature of their instrumnts. Finally, Dr. Hugh Chamberlen sold his secret to the College of Physicians of Amsterdam. The secret also leaked out as early as 1725 in England and the forceps were soon "widely known and quite generally used." They have undergone various modifications familiar to every physician. The advent of this beneficent instrument must have given a new impetus to operative obstetrics wherever it was known. Da la Motte is probably within the bounds of truth when he says of obstetric forceps that "all human science hitherto has not been able to find such an instrument."

Great progress was made in obstetric science by the French in the seventeenth century. All the more common obstetric operations were popularized by Francois Maurieceau, of Paris, President of the College de St. Come; Jules Clement, De la Motte and others. The latter advocated version in contracted pelvis, in opposition to the treatment with cutting instruments still in vogue during this period." Version by one foot was first proposed by Paul Portal (1713). "He was a defender of the powers of nature as well as the author of the doctrine that face presentations could be terminated without artificial aid."

In Germany operative procedures in obstetrics gained ground slowly. Justine Seigemundin, the court midwife to the Electrorate of Baudeburg, recommended "rupture of the membrane for the production of artificial delivery in hemorrhage," and was an especial advocate of bimanual version.

The first recorded Cesarean section by a regular physician, was made April 21, 1610, the operation being performed by Jeremias Trautmann, of Wittenberg, "in a case of hernia of the gravid uterus with development of a living child." The uterine wound healed kindly, but the mother died on the twenty-fifth day after the operation.

One of the most eminent obstetricians of the seventeenth century was Hendrick van Deventer, of the Hague (1651-1724). He was author of a work entitled "Manuale Operation," in which he recommends turning by the feet, but also employed cephalic version before or shortly after rupture of the membranes, resorting to direct traction of the head, until it engaged in the pelvis or having recourse, if necessary, to external aid." He taught that obliquity of the uterus was the chief cause of dystocias.

Comparative safety of footling and face presentations was taught by Van Hoorn, of Stockholm. He "regarded the replacement of the prolapsed arm for the purpose of accomplishing version, always unnecessary," and "was the first who had a correct idea of placenta previa." The following is a quotation from his Manual on Midwifery: "The afterbirth, which at the beginning of pregnancy, has seated itself upon or over the mouth of the womb, fastens itself there, to the great peril of the mother." This should be "pushed aside or penetrated" and the delivery hastened.

Early in the eighteenth century obstetrics separated to some extent from surgery, made rapid advances. The forceps were greatly improved by Johann Palfyn, who added a third blade for special use.

The two Gregories, the elder of whom founded (1720) the Hotel Dieu, "added a kind of lock to their forceps and used fenestrated blades." In all, there have been about 200 modifications of the forceps. The form of Levret was chiefly used in

France, that of Semellie in England, that of Naegele in Germany. At the Hotel Dieu, about the middle of the eighteenth century, "the first obstetric clinic for physicians was established." Andre Levert (1703-1780) pointed out the definite indications for version and improved the technic of the operation. He advised marginal detachment of placenta previa rather than central perforation, "regarded foot presentations as an indication for extraction," converted "breech into podalic presentation," and gave new "directions for the performance of Cesarean section."

Baudelocque rendered eminent service in his teachings regarding teh anatomy of the pelvis. His invention of an external pelvimeter was a distinct gain to science. Symphysiotomy was first recommended and performed (1777) by Sigault of Paris. According to Baas, his first operation terminated in vesical fistula, with prolapsus of the vagina and uterus, "but a living child was born and the operation found a few imitators in all countries."

The first obstetric clinic in Germany was established at Guttengen by Roderer (1726-1763) the first German professor of midwifery. Stein (1737-1803) invented the first German pelvemeter, 1732, and "brought forward instruments for rupturing the membrance (finger rings) and a perforator."

The most distinguished English obstetrician of the century, Wm. Smellie (1680-1763) of London, "invented numerous instruments, including forceps with so-called English lock." The celebrated Wm. Hunter was an "enemy of instrumental delivery and was in the habit of exhibiting his own forceps to a class all covered with rust." Dr. Edmund Chapman, author of a "Treatise on the Improvement of Midwifery," who had used the forceps as early as 1723, contributed largely to the diffusion of knowledge of midwifery forceps and their use.

In 1745 Bartholomew Mosse founded at his own expense the Dublin Lying-in-Hospital, the first of its kind in Great Britain. This hospital greatly favored the development of obstetric surgery. "Separate lectures on midwifery were still exceptional at most of the universities. "Lectures on surgery and midwifery were combined throughout the whole of the eighteenth century." (Baas.) In this country Dr. Wm. Shippen of Philadelphia (1736-1808), who had been a pupil of Dr. Hunter of London, "delivered the first course of instructions in the College of Philadelphia, in practical anatomy and obstetrics."

By the transference of obstetrics largely into the hands of the medical profession and also by the establishment of independent chairs on this subject, in the medical colleges, operative technique in obstetrics has been wonderfully improved during the century just closed.

Perhaps the most important advance made within the century was in the domain of bacteriology, antiseptics and asepsis, and a realization that all obstetric work is essentially surgical.

The method of expressing the placenta which bears his name, was first practiced by Carl Sigmond Crede, in 1819. This was a distinct improvement in the management of a tardy expulsion. The first lessons in cleanliness by antiseptics was taught by Ludwig Semmelweis (1846), professor of anatomy and obstetrics in Budapesth. Observing that puerperal sepsis was frequent in a maternity ward attended by medical students who often went directly to this department from post-mortem examination. After having the students cleanse their hands thoroughly in chlorin water before attending parturients, the result was that the mortality dropped from 11.4 to 1.27 per cent. in a few months. These results, together with Dr. Oliver Wendell Holmes' paper (1843) on "The Contagiousness of Puerperal Fever;" and James Y. Simpson's paper (1850) on "The Analogy Between Puerperal and Surgical Fevers," laid the foundation of our present knowledge of puerperal sepsis. Pasteur and Lister reared the superstructure of surgical bacteriology and ushered in the splendid era of modern aseptic midwifery and surgery. In the half century since Semmelweis' discovery greater progress has been made in surgery than in all the centuries that preceded this golden era.

The French favor now, as they did through the seventeenth and eighteenth centuries, instrumental interference and have done much to improve all phases of operative obstetrics. The English in their obstetric practice follow "on the one hand the principles of protecting the mother by utilizing to the utmost the natural forces of parturition, and on the other the principles of preserving the mother rather than the child, with of course, the eventual sacrifice of the latter for the sake of the mother. Hence as a result the frequency in England of craniotory or artificial abortion as well as the infrequent employment of forceps in difficult labors and the avoidance of Cesarean section." This inclination to postpone operative interference is exemplified in the course pursued" by Sir Richard Croft (1819), obstetrician to Princess Charlotte, when he permitted her to remain in labor fifty-two hours, the child being born dead and the mother dying six hours later. Croft shot himself through chagrin over his mismanagement."* A change, however, has taken place in England. Instruments are now more frequently used, and Cesarean section more frequently performed. Among the eminent English obstetricians of the century, most of whom also devote attention to gynecology as well, were Samuel Merriman, Mansfield Clark, Grannville, Groch, Ramsbotham, Davis, Locock, J. Braxton and Robert Barnes. In Scotland Sir . James Young Simpson, surgeon as well as obstetrician, was the first to employ ether anesthesia in midwifery, and on the fourth of November (1847) substituted chloroform for ether."

In America as in other countries, the establishment of medical colleges promoted all departments of surgery. The first independent chair of obstetrics, filled by Dr. Tennent, was established in King's College, New York, and instruction in obstetrics was also given in the colleges of Philadelphia by the professor of anatomy. The medical department of Harvard University was organized without a chair of obstetrics. In Dartmouth College obstetric instruction was given by "Dr. Nathan Smith, who for twelve years constituted the principal part of the faculty of that institution." In 1825 the same Dr. Smith was professor of the theory and practice of surgery and obstetrics in the medical department of Yale College, and about the same time Reubin D. Mussey was professor of anatomy, surgery and obstetrics in the medical school of Dartmouth College. Dr. Samuel Bard, Dr. Tennent's successor at King's College, was the author of the first American work on obstetrics (1807). On the organization of the College of Physicians and Surgeons (1857) the department of obstetrics was assigned to David Hoosaic, who was lecturer on botany and surgery. At the "University of Pennsylvania on the death of Dr. Wm. Shippen (1808), the chair of obstetrics was separated from that of anatomy and the former assigned to Dr. Thomas

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* Lusk's System of Midwifery.

C. James, who was influential in organizing the lying-in department in a hospital available for instruction.

Many others, including Hugh I. Hodge, Meggs, Bedford, Channing, Lusk, Parvin and H. C. Hirst, should be mentioned, for they have all contributed to the advancement of this important department of practice. This review of the development of obstetric surgery will, we trust, serve to furnish historical perspective, and increase our appreciation of the labors of those who have worked out the various steps of improvement.

It will help to keep before our minds the eminent practicians in this branch of medicine and their most important teachings, inventions and discoveries. Among these the mind will steadily revert to the knowledge of anatomy acquired by the Egyptians, the gospel of cleanliness inculcated by the Jews, version, Cesarean section, the invention of forceps, the use of chloroform in labor, the introduction of antiseptics and asepsis by the immortal Semmelweis. The development here outlined has been a growth of many centuries, and cannot be expressed in terms of inventions and discoveries, but an enumeration of a few of these will serve to illustrate how the present is rooted in the past, how the suggestions of one generation bear fruit in another, and how, therefore, historic medicine may be of service in evolving the medicine and surgery of the future. In medicine "our inspiration is in the future, but our landmarks are in the past."

The Egyptians laid a sure foundation, the only enduring foundation for surgery, in the study of anatomy. The Jews anticipated the highest need of the art, scrupulous cleanliness. The Greeks and Romans pointed out the possibilities of operative measures. The middle ages at least preserved the records; the moderns through Semmelweis, Pastur, Lister and Tait, demonstrated the priceless value of asepsis. Some of the steps in the development referred to above are the following:

(1) The various methods of inducing abortion and premature labor were known, as we have seen, to the ancients.

(2) Version and methods for its accomplishment are described in various writings: Hippocrates compares transverse position of child to an olive extending crosswise in a narrow-necked bottle. Version was practiced and described by the later Greeks, Romans, Jews and Medievals. Among modern methods are Wigands, Mauriceaus, Prague.

(3) Embryotomy, craniotomy, decapitation and amputation of extremities—all these operations have been practiced from remote antiquity. Among modern instruments for these operations are Blot's and Smellie's perforators, Hodge's scissors, Cranioclast's, Simpson's and Tarnier's basiotribe, Huevel's laminator, Braun's book.

(4) Cesarean Section: Æsculapius, Cesar, Manilius, Edward VI of England and Sanctus, King of Navarre, are supposed to have been born by hystertomy. Chalveur (Swine spayer) performed the operation in 1500. Roussetus in 1581 reported fifteen cases; Mercurius (1604), Valerus (1695), and others reported cases. Recent modifications, Sanger's, Duhssen's.

(5) Celiohysterectomy: Porro's operation—or ovarohysterectomy—amputation of the uterus after Cesarean section was first proposed by Michaelis, of Hambourg (1809), and first performed by Storer, of Boston (1868). The operation was deliberately planned and carried out by Eduardo Porro in Milan (1876), with recovery. Laparo-elgtrotomy, planned and attempted by Ritgen in 1821; perfected and performed by Professor Thomas (1870).

(6) Symphysiotomy: First symphysiotomy given on record is that performed in 1644 by Jean de la Courvee, the French physician at Warsaw; this was after the death of the mother for the purpose of saving the child. Jean Rena Sigault, of Angers, France, was the first to operate upon the living subject (1777). He received his suggestion in a work of Severian Pineand, published in 1598. Sometimes called Sigault's operation. Gennaro Galbiati, of Naples (1820), published reports of cases. He is the inventor of a Symphysiotomy knife, known by his name. Mortality: Zweifel operated twenty-three times without a maternal death, and only two children died. Morisani reports fifty-five cases with a maternal loss of 3.5 per cent.

(7) Forceps: In the "time of Hypocrates it was recommended in certain difficult cases of labor, to seize the child's head with the hands and put it down." The use of forceps in obstetrics was mentioned by Avicenna (1020). The invention of the forceps by the Chamberlens, has already been described. Stephane Tarnier, of Paris, invented the first axis traction forceps. Two hundred modifications have been made. Prominent among these being those of Davis, Simpson, Barnes, Sawyer, White, Hodge, Dubis, Wallace, Pajot, Naegale, Elliott, Landis-Davis' axis traction, Tarnier, Lusk-Tarnier, Simpson, Breus, Paullet.

(8) Episiotomy: Michaelis (1799) was the first to practice this procedure. It is not very generally employed in England or France, is more common in America, but is quite common in Germany and Austria.

(9) Chloroform: The discovery and use of chloroform or other anesthetics has aided in greatly extending operative procedure in this as in all other departments of surgery. To Sir James Y. Simpson belongs the favor of first using it in obsettric practice (1847).

(10) Asepsis: Beginning with the first authentic observations of living organisms by Athanasius Kircher (1671) and Leeuwenhock (1675) surgical bacteriology, chiefly through the brilliant work of Antonious Plenciz (1762), Schultze (1836), Pasteur, Ehrenberg, Cohn, Koch, Lemaire and Lister, has made it possible through asepsis, though not perfect, to secure the brilliant results of modern surgery. The mortality of Cesarean section prior to the era of asepsis was from 50 to 90 per cent. "A few years ago in England the death rate of Cesarean section," says Hirst, "was more than 99 per cent." But with improvement in technique and perfection of asepsis, the statistics of this operation "have steadily improved until at the present time it has been possible to collect sixty-eight consecutive cases with a mortalithy of 5.8 per cent. and twenty-seven cases with a mortality of 3.7 per cent. In general practice, however, the mortality is still high. In America, according to Harris, it "ranges from 30 to 40 per cent." In instrumental deliveries, where formerly there was a mortality of from 20 to 40 per cent., we now have a mortality in such cases of less than 1 per cent. While formerly the mortality of consecutive labors, normal and instrumental, was from 5 to 12 per cent., we now have record of three thousand consecutive labors without a death.

(11) Curettement, douche, etc.: To the foregoing have been added in late years, curettement, trachelorrhaphy, the douche, cervical dilators and various other instruments and procedures shared with general surgery which have greatly improved modern obstetric practice.

In our brief review of the progress of obstetric surgery we found that it began with Egyptian study of anatomy, and Hebrew gospel of cleanliness. Along these two lines—anatomy and cleanliness—has the genius of a long line of physicians and surgeons developed modern obstetric surgery, with anatomy still its chief corner-stone, and asepsis its crowning glory.

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Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting September 7, 1903.

Dr. F. W. Blake, President. Dr. J. D. Dunham, Secretary.

The following ten-minute papers upon

THE COLUMBUS WATER SUPPLY

were read: "Water-Borne Disease" (page 393), Dr. J. H. J. Upham; "Chemical Analyses of Columbus Water Supply" (page 399), Prof. E. G. Horton, Chemist of the State Board of Health; "Bacteriologic Analysis of Present Water Supply" (page 406), Dr. H. C. Fraker; "What is Our Present Water Supply?" (page 407), Superintendent O'Shaughnessy, Columbus Water Works; "What is Efficient Filtration?" (page 410), R. Winthrop Pratt, Engineer State Board of Health; "Sanitary Control of Water-Shed," Dr. C. O. Probst; "What Should Physicians Advise Regarding Use of Hydrant Water?" (page 414) Dr. J. W. Clemmer.

The subject is one of great practical interest to Columbus physicians and elicited a very general discussion. The consensus of opinion was expressed in the following resolution, offered by Dr. E. B. Fullerton, which was unanimously adopted:

Resolved, That in the opinion of this Academy of Medicine the city authorities should proceed with the greatest rapidity possible to the constructon of a dam of sufficent capacity to give an adequate supply of water for the city, and

Further, That they should arrange for the purification and softening of the water supplied.

FAIRFIELD COUNTY MEDICAL SOCIETY.

The first meeting of the Fairfield County Medical Society after organization was held July 21. The following papers were read: "Infant Feeding," Dr. G. O. Beery, Lancaster; "Cholera Infantum," Dr. J. H. Axline, Lancaster; "Cause and Treatment of Summer Diarrhea," Dr. O. P. Driver, Bremen.

The discussion was freely participated in by all present. The next meeting will occur August 18, when the following will be the program: "Cause and Treatment of Typhoid fever," Dr. C. W. Goss, Lancaster; "Differential Diagnosis Between Typhoid and Malaria," Dr. H. E. Heston, Baltimore; "Complications and Sequellæ of Typhoid Fever," Dr. G. S. Courtright, Lithopolis.

The society at present has 35 members and great interest is shown in all the meetings. G. O. BEERY, Secretary.

LICKING COUNTY MEDICAL SOCIETY.

The Licking County Medical Society held its regular monthly meeting Tuesday afternoon, September 1.

Dr. C. A. Foster reported the case of a young man who was was shot in the head about two weeks ago. An X-Ray examination showed the ball had divided into three parts. Patient has a fair chance of recovery.

Clinical cases were presented by Drs. Garrison, Larimore, Loveless and Speer. Dr. C. J. Loveless, of Perryton (O. M. U., '02), read a paper on "The Diagnosis and Treatment of Typhoid Fever." Dr. H. Burner Anderson read one on "Diabetes." Meetings fairly well attended.

Periscope of Medical Progress.

MEDICINE.

ALCOHOLISM AND ITS TREATMENT BY THE ANTI-ETHYLIC SERUM.

SYNOPSIS BY L. G. GUIBERT DE LA MACHE, B. A., M. D., OF A BOOK* PUBLISHED ON THIS SUBJECT.

Dr. Sapelier, of Paris, has recently published a book on the subject of the treatment of alcoholism. The facts observed are most interesting, but it seems that this method cannot yet enter into general practice, as the very delicate preparation of this serum has so far prevented its being put in commerce.

The method, nevertheless is attractive and presents very great interest. The results claimed are surprisingly good; the theoretical considerations which have brought Dr. Sapelier to utilize this method deserve to be read from beginning to end.

I here present a synopsis of the book which gives, I believe, a complete idea of the uses of this serum:

The antiethylic serum is a serum obtained from horses submitted to the quotidian absorption of moderate doses of alcohol. It does not contain any antiseptic. It is not toxic. Taken from horses aseptically without any other manipulation than Pasteurization, it is to be used in hypodermic injections.

Indication.—The antiethylic serum is applicable only during the latent period of alcoholic intoxication and only to habitual consumers of drinks rich in alcohol (brandy, whisky, rum, etc.).

The antiethylic serum is exclusively for habitual drinkers who drink every day little or much alcohol, without becoming intoxicated or becoming intoxicated and who drink only because they have acquired the habit and the need of it. They are not yet alcoholics with organic lesions, but are alcoholized, not alcoholics.

This latent form of alcoholic intoxication is more common and more dangerous because it is what we understand, in our days, by the moderate use of alcohol.

This clinical type, described by Dr. Sapelier under the name of Alcoholomania, by reason of its analogy with morphinomania, exists each time that the subject presents the two signs clynico psychic (from the fact of the use, even moderate but continued, of alcohol): First sign, habit of drinking alcohol (result of education—perversion). Second sign, habit, irresistible need, veritable mania of drinking alcohol (special form of Bulimia).

The antiethylic serum must consequently be reserved for the treatment of alcoholomanes, healthy in body and mind, only toxicated; alcoholized not alcoholics, and the most extreme cases in which it can be used is for alcoholics, chronic from the beginning, who impregnate themselves with toxin by a daily and regular imbibation in doses more or less moderate, obeying habit by a weakness of their nervous system, weakness of a toxic origin.

Action and Therapeutic Effects.—The action of the antiethylic serum is entirely of a physiologic character. Like every serum it stimulates the economy of the system in inciting the various apparati to react against the toxin, acting also on circulation, absorption, etc.; it incites the nervous system, weakened from the action of alcohol itself to react against alcohol.

The antithylic serum re-establishes the primary physiologic nature, which is, intolerance and instinctive distaste; in the place of the secondary pathologic nature, which is, habit, result of education—perversion for alcohol. The antiethylic serum makes again of the alcoholomane an instinctive, that is to say, brings him back to his primary condition in which he has instinctively a distaste for alcohol.

The alcoholomane without tares* degeneracies and not treated in an hospital—if treated by the antiethylic serum, looses his alcoholic education, looses his tolerance, his habit, his appetite and his need of alcohol. He may acquire an absolute distaste for it. He recovers appetite, sleep, strength. The will, the consent of the subject, enter for nothing in the purely physiologic action of the serum; nevertheless it is necessary that when once he has become again an instinctive, the patient does not fight the instinctive distaste re-established by the serum nor commence again his education perversion for alcohol.

Obstacles to the Action of the Serum—Contra-indications.—In order that the antiethylic serum may stimulate the economy of the system to react against the toxins it is necessary that the economy and its different apparati may be able to be incited and to react. This is why all degenerations and lesions primarily or secondarily associated to the alcoholic intoxication form an obstacle to the action of the serum and are absolute contra-indications of its use.

The only means to know if the case is liable or not to the treatment with serum is to make a sure diagnosis of alcoholomania and of all degenerations, degeneracies or lesions being able to accompany it.

Dipsomania, inveterate chronic alcoholism, belong to the class of the following degeneracies, tares:

Psychic degeneracies comprise not only psychoses, but also degenerates, impulsives, desequilibrated. Dipsomanes being impulsives, degenerates, in whom the fact of drinking is a manifestation of their pathologic condition, must not be treated with this serum, nor all victims of various psychoses.

Psycho-physiologic degeneracies form an obstacle to the serum; consequently, one must not inject the hysterics, hystero-epileptics, neurasthenics.

Physiologic degeneracies comprise the material lesions of the nervous system (old foci of hemorrhagia or of softening, the myelites, etc.), and all diseases of nutrition of alcoholic origin or imputable to any other cause of organic viciation. One must then refuse to inject the serum in drinkers who are at the same time hemiplegic, medullary, diabetics or glucosurics, brightics, cirrhotics, arterio-sclerotics, tuberculous, syphilitics, etc. In these cases, cure first the lesion, if possible, and afterwards, inject.

Application of the Serum.—*A*. Make a complete and minute examination of the subject in order to be sure; first, that he is an alcoholomane and has not any one of the above-mentioned affections depending or not on alcohol and opposing themselves to the action of the serum; second, that there is not any glucose or albumine in his urine.

B. Every five days at the most or once a week at least, make an injection in the groin, taking all necessary antiseptic precautions.

C. The number of necessary injections is variable and is based only on obtained effects. But if the action of the serum is not manifested after the fourth injection at the latest, it is due to the existence of some latent degenaracy opposing itself to the action of the serum.

D. In order to be able to appreciate the effects of the serum, it is necessary to allow the patient his habitual occupation, his work, his pleasures, his temptations. Alone, this absolute freedom allows us to judge the results obtained.

E. To be sure that the patient will not resist the physiologic action of the serum, the will being able sooner or later to defeat a physiologic effect.

Inconvenience of the Serum.—Like all serums it produces sometimes an urticarian eruption and more rarely some indefinite eruption (polymorphous erythemata). These accidents are only of short duration and without gravity.

THE COLUMBUS MEDICAL JOURNAL.

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SEPTEMBER, 1903.

Editorial.

THE PREVENTION OF TUBERCULOSIS.

The Ohio Society for the Prevention of Tuberculosis, organized about two years ago, now has three hundred members. This number should be increased to three thousand. There is perhaps no other cause now appealing to the whole profession in which so much may be accomplished for humanity as in this one whose purpose is to stamp out the scourge of tuberculosis. There is none other in which science has so clearly pointed out the way, so successfully united the laity and profession in the opinion that the task proposed can be accomplished. What is now wanted is an organized effort on the part of enlightened physicians and laymen to secure the means to carry out efficient sanitary and prophylactic measures. It is a work for the state and nation. Physicians better than any other class of citizens know the dangers of this disease, and know also the possibilities in the way of prevention. They must be the teachers in this crusade. Especially should we endeavor to place the matter in its true light before members of the next legislature. Public sentiment must be aroused on this question and crystallized into a demand upon the legislature to enact the best possible regulations to prevent the spread of the disease and also to provide sanatoria for the treatment of the tuberculous sick. The demand for their care should be regarded as equally urgent with that for caring for the insane. The dangers from the former class, though more insidious, are far greater, while the relative advantages both to the individual and society would, we believe, be decidedly greater in case of state regulations and sanatoria care of tuberculous patients than that derived from hospital care of the insane. State and municipal regulation of out-door patients would impress the public with the importance of the subject, insure observance of the regulations, and lead to a more careful study of the whole subject by the people. The proportion of cures in state sanatoria would be much greater than in case of the insane.

This task of educating the public, and of securing favorable action by the legislature lies with the medical profession, and we desire to urge upon every physician interested in the prevention of this dread disease, to join the Ohio Society for the Prevention of Tuberculosis. Give of your means and influence to the promotion of this, the most stupendous, as it is the most promising undertaking of modern sanitary science.

MALPRACTICE SUITS.

There is, perhaps, no other profession which is subject to the same degree of annoyance from prosecution as the medical profession, and this not because of greater neglect on the part of physicians to perform their duties as well as is done in other callings, but rather because of the scientific character of their work, concerning which the public fail to distinguish results that are unavoidable and those incurred from negligence. So great is this annoyance that many surgeons have placed their personal property beyond the reach of the law. No doubt many suits are instituted as attempts at blackmail, there being no evidence that the surgeon was derelict in the discharge of his duty.

Dr. Harold N. Moyer in an article on Forensic Medicine, in the Practical Medicine Series of Year Books for the current year, says in a review of the current literature on the subject of malpractice suits: "They are increasing in frequency, but the number of suits successfully prosecuted is no greater, if there are as many, as a few years ago. The increase in this class of litigation seems to be dictated by the same influences that have increased the personal injury litigation throughout the country. The legal construction in this class of litigation has remained substantially the same, in the code and common law states. There have been minor rulings on given sets of facts that have some bearing on individual cases, but they do not affect the general principles of the law applicable to this class of litigation. By far the larger number of suits are brought without hope of coming to successful trial, but are urged by disgruntled patients to avoid the whole or a portion of the physician's just compensation, or else are a species of blackmail urged by unscrupulous attorneys.

This situation has attracted attention throughout the country and has led physicians to combine for mutual protection. A couple of insurance companies have been started for the purpose of insuring physicians against loss from this class of litigation. In imitation of the English protective association, some medical societies have undertaken to protect their members against unjust suits of this kind. The experience of the English association has been very happy. At a nominal cost of a few shillings for each member they have provided attorneys, and successfully defended their members. The cost of the co-operative plan as inaugurated in England has been a mere fraction of the premiums charged by the insurance companies in this country, and yet the protection has been adequate. It has been the experience of these mutual associations that the majority of suits actually begun, or threats of suits, are what are known in slang parlance as a "shake down" for the doctor. Rather than appear in court or go to the expense of retaining an attorney for the defense of the suit, the plaintiff and his attorney hope that he will pay a small sum—from one to three hundred dollars—and thus avoid the trouble and worry of litigation and the incidental publicity. It is this class of litigation that is so effectively met by a co-operative plan. Retaining an attorney who will docket the cases, all that a physician has to do is to turn the matter over to a committee, who will look after the litigation and who can do so without much expense. A further valuable effect of such co-operative methods would be to give the profession valuable data upon such suits, their basis and the best means of defending them. If it were once generally known that no suits of this kind would be compromised, but would be fought to a finish, it would lessen the number of blackmailing malpractice suits to almost the vanishing point. In this, as in other matters, the "ounce of prevention is worth a pound of cure," and it is to be hoped that the co-operative plan will receive wider application in the near future. There is no reason why it should not be made a function of all regular medical societies. In cases where the local society is of sufficient size, it can have a bureau of its own. Where local societies are too small, they can be aggregated together for this purpose, but in many instances the state society might undertake the work. The Chicago Medical Society, with its 140 members, began this work with the beginning of the current year. In that short time no cases have as yet been tried, but a number have been disposed of in various ways, saving the members expense and trouble. The Chicago Medical Society set apart a sum amounting to one-fourth the annual dues, for this purpose. An attorney was retained by the year to look after the cases. In many instances a letter from the attorney stating that he had been retained and no offer of compromise would be considered, was sufficient to end the proposed litigation. A co-operative plan such as this among the physicians will be quite as efficient and vastly less expensive than insurance in a company organized for the purpose. The physicians can do the work for each other with less expense and quite as effectively as an insurance company."

This subject is one which should receive the attention of the medical societies. With the more perfected organization of the profession of counties and states mutual protection could be secured. The plan proposed would accomplish good, not only by protecting the individual against malpractice suits, but also in uniting the members of the profession.

OHIO SOCIETY FOR THE PREVENTION OF TUBERCULOSIS.

The following are the officers of the Ohio Society for the Prevention of Tuberculosis: Mr. S. S. Knabenshue, Toledo, President; Dr. Wm. T. Howard, Cleveland, Vice-President; Mr. R. M. Rownd, Columbus, Treasurer; Dr. C. O. Probst, Columbus, Secretary; Dr. Benj. F. Lyle, Cincinnati, Financial Secretary.

Trustees: Dr. Byron Stanton Cincinnati; Dr. H. A. Tobey, Toledo; Dr. C. O. Probst, Dr. G. A. Doren, Columbus; Judge Gilbert H. Stewart, Columbus; Dr. A. H. Freiberg, Cincinnati; Dr. P. M. Foshay, Cleveland; Dr. W. J. Conklin, Dayton; Mr. Cady Staley, Cleveland.

The society makes an appeal to the profession for co-operation—active assistance. They say in a small circular:

Tuberculosis can be and is communicated from one person to another. At the present rate, if it goes on unchecked, it will destroy one person out of every ten now living in Ohio. *It can be prevented. It can be cured.* This is the object of the Ohio Society for the Prevention of Tuberculosis. Will you assist? Membership fee, $1.00; annual dues, $1.00; life membership, $50.00. Send name and amount to Dr. C. O. Probst, Secretary, 185 East State street (McLene Building), Columbus, Ohio, and receive all the literature of the Society.

Help the Society secure a State Sanatorium for the cure of Consumption, unanimously recommended by the Ohio Tuberculosis Commission. More than 50 per cent. of early cases can be cured right here in Ohio.

A DAILY MEDICAL JOURNAL.

The Daily Medical Journal, to be published by the Medical Publishing Company of America, with headquarters in New York City, is the title of a projected medical newspaper, Dr. Albert Warren Ferris, A. M., M. D., editor. The company has acquired the *Medical Critic,* a well-edited monthly, which started about two years ago. The journal is to be a six-page daily, each page 12 by 15 inches, with a possible issue of 100,000 copies daily. The first page will contain the daily medical and surgical news of the world, the second page will be devoted to editorials, original articles, clinical notes and miscellaneous scientific reports; the third page will be made up of society reports, reviews, illustrations of new instruments and recent patented articles, while the fourth page will be made up of a daily critical report of the entire current medical literature of the world. The prospectus says: "Never again will a physician have to wait for weeks for the report of an event; we will present it to him on the same or following day whereon it occurs."

Each of the first 15,000 subscribers will receive a copy of the "Index Medicus," which of itself is worth the subscription price of one dollar.

Medical News Notes.

Dr. G. D. Sanor and wife are visiting in Michigan.

Dr. D. G. Roebuck, of Dalton, O., was in the city recently.

Dr. R. F. Leslie spent a week at Lancaster camp grounds.

Dr. Griffith and family spent several weeks at Cedar Point.

Dr. Yeatman Wardlow spent the summer at Long Island.

Dr. G. A. Doren is spending a few weeks at Asbury Park.

Dr. W. J. Means spent a month at Crab Lake and other points.

Dr. W. C. Langdon, of Cincinnati, visited with friends in this city.

Dr. D. N. Kinsman has returned from West Newton, Mass.

Dr. C. A. Cooperrider returned from a pleasant trip in the east.

Dr. and Mrs. E. M. Parrett have returned from a visit to Mackinac.

Dr. and Mrs. A. A. Peasley are on a trip to New York and the east.

Dr. and Mrs. J. W. Clemmer spent a few weeks at Petoskey, Michigan.

Dr. A. W. Newell, of East State street, is spending the week at the lakes.

Dr. and Mrs. B. I. Barbee are on a vacation trip to Mackinac and points north.

Dr. G. R. Bissell has returned to the city after a ten days sojourn at the seashore.

Dr. and Mrs. E. T. Tidd vacationed two weeks in West Virginia among friends.

Dr. and Mrs. T. K. Wissinger sailed August 20 for England and a tour of the continent.

Dr. and Mrs. E. L. Rexford have returned from Chautauqua, where they spent five weeks.

Dr. W. E. Fulton, of Monroe county, spent several days in the city during the past week.

Edson Christopher Brown, assistant physician State Hospital, Massillon, was in the city Friday.

Dr. Edward Sherman and family enjoyed an outing of three weeks at Manistique, Northern Michigan.

Dr. E. J. Wilson has gone to Los Angeles, and San Francisco, and will return home by way of Montreal.

Dr. and Mrs. Thomen at the Park hotel entertained Dr. and Mrs. B. K. Thomen of Baltimore recently.

K. S. West, one of the assistant physicians, State Hospital, Cleveland, visited in the city a few days recently.

Dr. Thomas C. Hoover, of East State street, has returned from a vacation spent at Columbus Beach, Mich.

Dr. Sara Fletcher has returned from her vacation, part of which was spent in the hospitals and clinics at Chicago.

Dr. and Mrs. A. A. Peasley have returned from Waterbury, Conn., New York, Philadelphia, Atlantic City and Washington.

Dr. A. C. Holmes, formerly with Hospital for Insane, Columbus, but at present assistant superintendent at the Epileptic Hospital, Gallipolis, visited the State Hospital a few days.

Dr. Charles F. Bowen, of 226 E. State street, has just returned from a tour of inspection through the leading electric laboratories of the east, and expects to devote himself exclusively to X-Ray and electric therapeutics. Office in the Grant Hospital, of this city.

Recent Medical Books.

BOOKS RECEIVED DURING AUGUST.—Pediatrics, Orthopedic Surgery. Rbt & Ridlon. Year Book Publishers.

King's Manuel of Obstetrics. A. F. King. Lea Bros. & Co.

Nurses Hand Book of Obstetrics. Cooke. J. P. Lippincott.

International Clinic, 13th series. Kelley. J. P. Lippincott.

Diseases of the Eye, Vol. II. May. Wm. Wood & Co.

Practical Med. Series. July. Year book Publishers.

A TEXT BOOK OF SURGICAL PRINCIPLES AND SURGICAL DISEASES OF THE FACE, MOUTH AND JAWS, FOR DENTAL STUDENTS. By Horace Grant, A. M., M. D., Professor of Surgery and of Clinical Surgery in Hospital College of Medicine; Professor of Oral Surgery in the Louisville College of Medicine; Professor of Oral Surgery in the Louisville College of Dentistry, etc. W. B. Saunders & Co. Philadelphia, Pa. 1902.

The author of this work states that it is his object to explain the principles of dental surgery applicable to all operative procedures, and also to discuss such surgical lesions as are likely to require diagnosis and perhaps treatment by the dentist.

He is successful in carrying out his purpose. The book is well adapted to dental students. The scope of the work is sufficient to give the student a comprehensive working knowledge of such subjects that are likely to come under his care.

The arrangement and subject matter covering the needs of the dental student without encumbering him with details foreign to the course usually taught in the colleges of this day.

Teachers of oral surgery will find this book very useful and practical. M.

ESSENTIALS OF THE DISEASES OF THE EAR. Arranged in the form of questions and answers, prepared especially for students of medicine and post graduate students by E. B. Gleason, S. B., M. D. Third edition, thoroughly revised. W. B. Saunders & Co., Philadelphia Pa. 1902.

A valuable epitome on diseases of the ear. Students and teachers will find it convenient in preparing lessons. It is also suited to the needs of practicing physicians. M.

SUTER ON REFRACTION. A Manual of Refraction and Motility. For Students and Practitioners of Medicine. By William Norwood Suter M. D. Assistant Surgeon to the Episcopal Eye, and Throat Hospital, Washington, D. C. 12mo, 382 pages, with 101 engravings and 4 colored plates. Cloth, $2.00, net. Lea Brothers & Co., Philadelphia and New York.

Notwithstanding the fact that these two fundamental branches of ophthalmology are so closely connected that an understanding of one is practically impossible without the other, this is the first work in English which covers both subjects within a single pair of covers. To the general physician the book will prove especially valuable. It is a plain, practical guide in a rapidly-growing and fairly-remunerative department of practice. The prescribing of proper glasses to correct defective vision will perhaps bring to the competent practitioner more patients than any other one branch of medicine.

Dr. Suter, whose large experience has eminently fitted him for the task, has furnished a manual which is in every way admirable. Simple and clear enough for the beginner, it is yet so comprehensive and meaty that the specialist will value it as a handy and trustworthy reference. Illustrations in black and colors have been freely used, and anticipation of a wide usage has led to its publication at a most moderate price. M.

PROGRESSIVE MEDICINE. Fifth Annual Series. Volume II, June, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 427 pages, with 46 illustrations. Per volume, $2.50, by express prepaid. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphiai and New York.

A glance through this volume will suffice to show the reader the fatuity of attempting to keep up with the progress of scientific medicine unless he can avail himself of such work. The enormous amount of material which it contains is the more astonishing when it is realized that it represents only what is of real, recognized scientific and practical value in current medical literature, and not simply a mass of abstracts of articles which have appeared in magazines. Each of the contributions possesses features which render it especially valuable to every medical man.

The article by Dr. William B. Coley, on the "Surgery of the Abdomen, Including Hernia," cannot be over-estimated.

Dr. Clark begins the section of Gynecology with a thorough discussion of all the various phases of cancer of the uterus—its etiology, clinical manifestation and treatment.

Dr. Stengel's section on Diseases of the Blood includes also morbid conditions of the ductless glands and disorder of metabolism.

The section on Opthalmology, edited by Dr. Edward Jackson, is, as usual noteworthy for the practical value which it possesses, not only for the opthalmologist, but for every physician.

The volume is especially copiously illustrated throughout. and the excellent arrangement of its material, together with a full index, render it most convenient for reference. M.

ARCHINARD'S BACTERIOLOGY. A Manual for Students and Physicians. By P. E. Archinard, M. D., of Tulane University Medical Department, New Orleans. In one 12mo volume of 210 pages, with 74 illustrations. Cloth $1.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

The value of an epitome lies in its concise and clear presentation of essentials, thus forming a solid foundation, upon which may be built a sound superstructure of practical knowledge. Judged from this point of view, Dr. Archinard's work is entitled to consideration as a model. M.

A COMPEND OF HUMAN ANATOMY. By Samuel O. L. Potter, M. A., M. D., M. R. C. P. Lond. Formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco; Author of the "Handbook of Materia Medica, Pharmacy and Therapeutics"; "Quiz-Compend of Materia Medica," "Index of Comparative Therapeutics," and "Speech and Its Defects"; late Major and Surgeon of Volunteers, U. S. Army. Seventh edition, revised and enlarged. With 138 wood engravings; also numerous tables and 16 plates of the arteries and nerves. Philadelphia, P. Blakiston's Sons & Co., No. 1012 Walnut street. 1903. Price, 80 cents, net.

This valuable work has reached its seventh edition, it has been entirely rewritten and brought into harmony with the latest text-books on this subject. The illustrations are excellent. The text, which follows very closely that of Gray, is reliable, designed originally for the use of medical students. The text is confined to the essentials. It is one of the best books of this kind published.

REFERENCE CHART OF "DISEASES OF THE NERVOUS SYSTEM AND MUSCLES," is the title of a very conveniently arranged booklet prepared by Edward C. Hill, M. Sc., M. D., a member of the faculty of the Medical Department of the University of Denver, published by the Antikamnia Chemical Company, St. Louis. This chart will, it is presumed, be sent to any physician on application.

THE COLUMBUS MEDICAL JOURNAL.

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SPECIAL TOPOGRAPHY OF THE URETER AND TRACTUS LYMPHATICUS.

BY BYRON ROBINSON, B. S., M. D., CHICAGO.

Gynecologist to the Woman's Hospital; Consulting Surgeon to the Mary Thompson Hospital, Chicago, Illinois.

The special topographic relations of the ureter to the tractus lymphaticus comprises three factors, viz: (a) The relation of the ureter to the special segment of the tractus lymphaticus—the peritoneum; (b) the relations of the ureter to adjacent lymph nodes; (c) the results of infection on the tractus lymphaticus (especially the peritoneum) from operations on the ureter.

(A) THE TOPOGRAPHY OF THE URETER AND PERITONEUM.

The topography of the ureter and peritoneum is so important that ureteral surgical operations are named according to whether the operative procedure is extraperitoneal. The ureter lies extraperitoneal in its entire course. It is bound to the peritoneum by fibrous bands so that during cleavage or stripping of adjacent ureteral tissue the ureter will follow the adjacent peritoneum. The ureter is a peritoneal organ as regards movement and nourishment. The ureter is more intimately related to the peritoneum, than any other viscus (except the bladder and kidney). In spare subjects one can observe the ureter shimmering through the peritoneum like a white band for almost its entire course. The ureter is more intimately bound to the peritoneum than the vasa iliaca. In general the proximal ureter is more intimately connected with the peritoneum than the distal. The ureter in its general course is nearer to the peritoneum than the lumbar or pelvic wall. The ureter is applied to the peritoneum in its entire pelvic extent without an intervening organ, while in the lumbar region the vessels (ovarian and superior and inferior mesenteric) intervene between the ureter and peritoneum, an important matter in the transperitoneal operation on the ureter. In the pelvis the vascular pedicle (umbilical or internal iliac) intervene themselves between the ureter and lateral pelvic wall. The positional relations of ureter, vessels and peritoneum alters methods and results of ureteral surgical intervention. Thus the ureter is safely and easily accessible in the lumbar region by the extra-peritoneal route without the ligation or damage of a single important structure. In the pelvis ureteral access by the extra-peritoneal route is less favorable. The pelvic ureter can be exposed extra-peritoneally to the bladder, but the operations on its distal and deep in the pelvis would be unsatisfactory

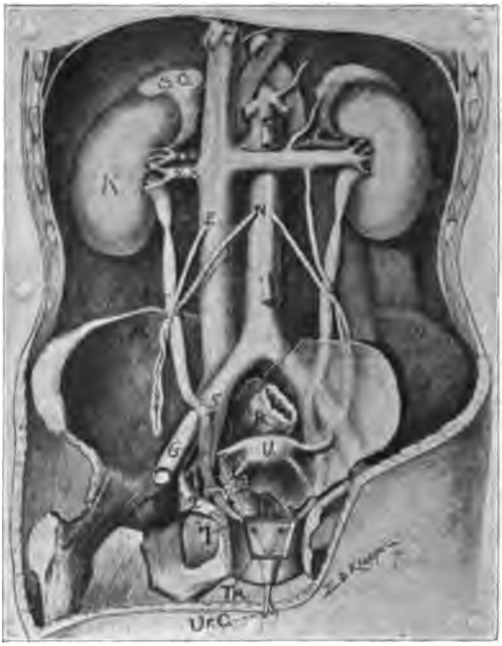

FIG. 1 (Author). The drawing illustrates the ureter in its natural course partially covered by peritoneum.

from lack of space to manipulate. Practically the ureter and peritoneum functionate together as in distention and contraction of the pelvic organs and vertical cola. In structure the peritoneum and ureter are intimate as the ureter in cleavage or stripping of the subserosum follows its fibrous connection with the peritoneum. The ureter will glide with the peritoneum over the fixed vessels on the pelvic wall. In general the lumbar ureter is more intimately associated with the peritoneum than the pelvic ureter.

The ureter bears special topographic relations to certain peritoneal structures termed folds, fossa, ligaments or mesenteries which from their importance in diagnosis and surgical intervention should be considered separately as regards topography.

(a) TOPOGRAPHY OF URETER AND LIGAMENTUM LATUM.

The ligamentum latum of all peritoneal folds has the most important topographic relations to the ureter. The relation of the ureter to the ligamentum is that the ureter passes obliquely through its base, but does not lie between the blades of the ligament. The ureter as it passes through the base of the ligamentum practically abandons the peritoneum penetrating deeply into subserosums. The pelvic ureter is the most mobile at the base of the ligamentum latum. During the course of the ureter through the base of the ligamentum latum it crosses dorsal and proximal to the ligamentum teves, the uterer and round ligament are separated by the plexus venosus vesicovaginalis. The ureteral sheath is strong and thick in the base of the ligamentum latum which aids the ureter to withstand the trauma of surgical intervention.

(B) THE TOPOGRAPHY OF THE URETER AND ADJACENT LYMPH NODES.

In perfect health there are found small lymph nodes distributed on and adjacent to the ureter, especially where the ureter crosses the vasa iliaca. In other words in the iliac segment of the ureter or at the middle arterio-ureteral crossing the lymph nodes are the most prominent and in diseased or hypertrophied condition compromise the ureter lumen by pressure and consequent flexion. In malignant disease, as carcinoma, the distal end of the ureter especially adjacent to the cervix uteri the ureter suffers from compression and flexion, causing obstruction and dilitation of the ureteral stream. The periureteral lymph nodes become hypertrophied from various disease as tuberculosis, typhoid fever, malignancy, syphilis and infectious processes radiating from the tractus intestinalis. In observation of the ureter during autopsies I have noted enlarged adjacent lymph nodes compress the ureter, producing flexion and marked proximal ureteral dilitation. Damaging compression of the ureter by hypertrophied adjacent lymph nodes, I have observed only in the iliac and pelvic ureteral segments. Enlarged adjacent lymph nodes compromise the ureter more than adjacent tumors because they cling so close to the ureteral walls.

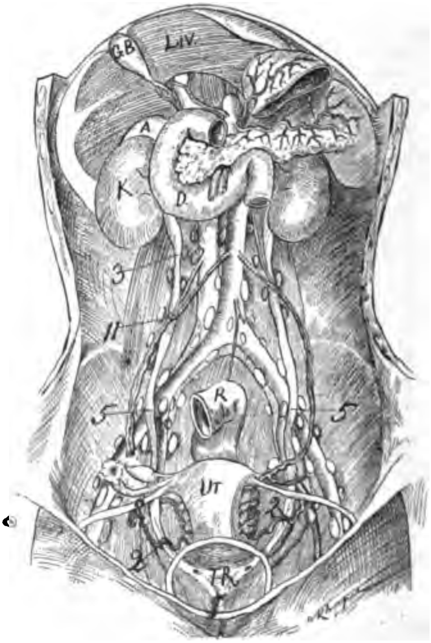

FIG. 2 (Author). Illustrates the lymph nodes found along the ureter. In disease the glands may become enlarged. In autopsy I have noted the glands at the flexura Iliaca ureteris so much enlarged that the ureter was kinked and dilated proximal to the obstruction.

(c) The effect of operations on the ureter through the tractus lymphaticus is of such importance that ureteral operations are designated extra-peritoneal or transperitoneal. This signifies that the relation of the ureter to the peritoneum assumes importance because of the susceptible nature of the peritoneum to infection. It must not be forgotten, also, that the ureter has important relations with the tractus vascularis, has so far as operations are concerned as transperitoneal operations are not alone dangerous for peritoneal infection, but the right and left colic vessels are liable to be lacerated, endangering colonic gangrene—as has been reported.

The Ameican Electro-Therapeutic Association, at its recent meeting in Atlantic City, elected the following officers: President, Dr. Rockwell, of New York; First Vice-President, Dr. Willis P. Spring, of Minneapolis; Second Vice-President, Dr, Wm. Winslow Eaton, of Danvers, Mass.; Treasurer, Dr. Richard J. Nunn, of Savannah, Ga.; Secretary, Dr. Clarence Edward Skinner, of New Haven, Conn. The meeting is said to have been a very interesting and profitable one.

RACE SUICIDE.—Another small after-clap following President Roosevelt's and President Eliot's thunder appears in The Nineteenth Century and After in the shape of an article by Frances Albert Doughty, of Baltimore, called "The Small Family and American Society." American readers will be interested to see how an American woman presents the question to English readers. *The Living Age* reprints the article for their benefit in the number for October 10.

The University of Chicago has purchased a site for the Rush Medical College on the Midway Plaisance, for $1,450,000. The McCormic Memorial Institute for infectious diseases will occupy part of the ground.

STOKES-ADAMS' SYNDROME AND ACQUIRED SYPHILIS—CASES.

BY FRED FLETCHER, M. D., COLUMBUS, O.

I. STOKES-ADAMS' SYNDROME.

Definition. A symptom complex whose fundamental feature is that of a permanent bradycardia, with syncopal, epileptic or apoplectiform seizures.

Nervous manifestations vary both in type and severity [1]according to the susceptibility of the nervous centers to the circulatory disturbance induced by the slow pulse.

Symptoms. [2]Simple vertigo may occur or paleness of the face usher in an attack of syncope and render the patient insensible for a few minutes. There may be a complete loss of consciousness with convulsions (epileptiform type), or, what is less common, the apoplectiform type without paralysis. Prodomata are not infrequent. A distinct aura may occur, or "sinking spells," precordial oppression and headache usher in an attack. Extreme pallor, staring eyes, a cold skin, and moaning usually accompany the paroxysm.

The pulse rate may be 40 or 5 per minute,[3] and even lower as in a case which came under my own observation. Usually, the pulse frequency bears a distinct relation to the severity of the nervous symptoms. [4]There may be a perfect synchronism between the heart beats and the respirations, there being an inspiration for each beat of the heart.

Etiology. More men suffer than women. [3]Severe bodily efforts, not necessarily extremely prolonged, and mental and emotional strain, come the nearest to being frequent causes. Senility and extreme grades of arterio-sclerosis predispose. [3]It may, however, occur in childhood, and[1] sclerotic changes in the arteries is not essential for its production.

The exact pathological criterion is not known. [3]It is supposed to result from changes in the vagus center, due to disease of the arteries of the medulla. Sclerotic degeneration, aneurisms, and [1]a fibrosis of the upper part of the ventricular septum seem prone to occasion the trouble.

Prognosis is dependent upon the degree of bradycardia, the age of the individual, the severity of the nervous symptoms, the cause, and the type of the disease. Three and a half years has been metioned as the probability of life.

Exceptions to this rule are not uncommon. Osler mentions a case in which the symptoms complex occurred at irregular intervals for a period of thirty years. I have in mind a gentleman (under the care of a physician in another state), age 62 years, who has had an average of one epileptiform seizure every two months for the past sixteen years. He enjoys excellent health during the intervals, and has a normal pulse which varies between 40 and 36. Its frequency has been reduced to 20, and will beat for hours at this rate subsequent to a paroxysm.

Treatment. There is no specific. Rest in the recumbent posture should be enjoined, and cardiac stimulants administered. [3]Theoretically, the bromids might lessen the reflex action of the vagus. [5]Cohen reported a case in which adrenilen was used, hypodermically, without success.

Unfortunately the history of the following case is vague. The patient could neither speak nor be made to understand English. No very careful observation was made by the attending physician, and it follows that no bedside record was kept. I saw the patient in consultation twelve hours before his death.

Personal History. Mr. M., a Hebrew, aged 92 years. No specific disease. He had never been sick. Hearing was acute, and he could read without the aid of glasses. For the past six months he has been deeply interested in the building of a church, and worried constantly over factional controversies. Up until the time of his being stricken with supposed apoplexy he was unusually active, walking one-half mile each day for exercise.

Present Trouble. One morning while conversing with a friend he fell to the ground; was unconscious, and on being removed to his room was treated for cerebral hemorrhage. There was no paralysis, no frothing at the mouth, or epileptic movements. The pupils were of equal size. Urinary incontinence occurred.

In this, as in the subsequent apoplectic seizures, there was neither nausea, vomiting, dysphalgia, nor a very pronounced cyanosis. The attack lasted twenty minutes, and in the course of an hour he was up and about, although he felt dizzy and said he was weak. Later in the day he had frequent epileptic seizures—always with a reduction to eight beats per minute in the pulse rate. He complained bitterly of precordial oppression, and feared the paroxysms since they were attended by a sensation of impending death. In the interim the normal pulse frequency varied between 24 and 16 beats. Each attack had a duration of from 1 to 5 minutes and was preceded by a distinct aura. The expression would become anxious, and the patient restless. He would press both hands over the precordium, gasp for breath, cry out as if pained, and, with the advent of the epileptiform movements, grasp the side or head of the bed for support.

Seemingly, at its very acme, relaxation would replace the muscular rigidity and a momentary period of unconsciousness ensue. Dyspnea was marked, especially when the paroxysm was general or of a violent type. Syncopeal attacks were not infrequent. They were marked by quietude.

On the second day the patient felt comfortable; slept several hours, and took nourishment. The pulse was 22 per minute. Six epileptic paroxysms were noted.

On the morning of the third day an apoplectiform seizure occurred which resembled the incipient attack. Others followed at intervals of every three to four hours. Each succeeding attack had a longer duration than the previous one, and was characterized by a more pronounced type of Cheyne-Stokes' respiration. He had eight in all, with an average duration of 20 minutes each.

Examination. Weight 165 pounds and well nourished. Lips cyanotic and facies pinched. Pupils were of equal size and reacted. The thorax symmetrical.

The cardiac impulse was perceptible in about its normal position. The carotids pulsated, but contained no murmurs. There was no cardiac lesion; no thrills palpable, nor a very marked degree of arterio-sclerosis of the superficial arteries. The aortic sound was accentuated—of a booming character—and heard over the entire precordial area. The pulse was 16, full, regular, and non-compressible. Its frequency bore a distinct relation to the severity of the attacks. The radials pulsated synchronously. Peripheral circulation seemed good, and nothing abnormal was found with the thoracic and abdominal viscera. There was no edema of the extremities. The reflexes were normal. Babinski's, as well as Kernig's, sign was absent. Temperature 99.5.°

The urine was voided involuntarily during the paroxysms. Examination of the urine on the first day of the patient's illness showed phosphates, a trace of albumin, and a few granular casts. There was no sugar. The urea was 2 per cent.

The patient had thirty-two attacks—syncopeal, epileptiform, and apoplectiform. He died on the evening of the third day during an epileptic seizure, in which general convulsions were present. During the last three hours of life he was extremely restless. The pulse was frequently as low as four, and never beat at a faster rate than twelve per minute.

An autopsy was refused.

Treatment consisted in the use of the bromids per rectum—hyoscin and cardiac stimulants hypodermically.

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3. Edes: Slow Pulse, with Special Reference to Stokes-Adams' Disease. Trans. Assoc. of Amer. Phys., 1901.
4. Zeri: On a New Phenomenon Observed in a Case of Adams-Stokes' Disease. Abs. in N. Y. Jour. and Phila. Med. Jour., Sept. 26, 1903, p. 624.
5. Cohen: Abs. Phila. Med. Journal, April 5, 1902.

II. ACQUIRED SYPHILIS.

Syphilis with the following features merits recording:

First. Extreme length of the primary period of incubation —86 days.

Second. Sclero-edematous (parchment-like) type of chancre.

Third. Unusual length of secondary period of incubation—72 days.

Fourth. An absence of the usual premonitory secondary symptoms.

Fifth. Unilateral plastic pleurisy as the incipient secondary manifestation.

Sixth. Exceptionally mild erythemo-papular syphilid, with albuminuria, jaundice, and a pronounced anemia.

Seventh. Rapid amelioration of the malady to active anti-syphilitic treatment.

Eighth. A cicatrix—from the destructive process of initial lesion.

History of case: W. D., aged 32 years, married and the father of four children, consulted me September 10, 1902, with an erosion of the penis. The history was that of a severe ivy poisoning of one month previous. The lesions were chiefly vesicular; involved the genitalia, anal region, and extremities, and, with the erythema, they disappeared in the course of ten days. However, a small "weeping" erosion tended to persist on the left side of the penis, and with the advent of time had grown gradually larger. It was noticed (at the time of his first visit) to involve the integument of the prepuce and measured 3 c.m. in length. The ulcer was painless, sharply defined, and its floor studded with highly vascular granulations. A low inflammatory process characterized the lesion, and contiguous tissues were infiltrated. The entire penis was boggy. A profuse serous discharge was present. The surrounding epidermis remained intact. None of the anatomically related glands were found enlarged.

Its existence, and gradual increase in size, was accounted for by the patient saying that a bleb had formed during the attack of dermatitis and had failed to heal because of the local use of zinc sulphate, and constant friction of the overalls during work.

When questioned concerning intercourse, he said that he last had coitus with an unknown harlot on May 15, 1902.

The lesion was viewed with suspicion; treated with a conservative cleanliness, and the patient ordered to report every second day. With each succeeding week, under non-irritating medication, the ulcer grew larger, assumed an irregular outline, and ere the ninth week had encircled three-quarters of the circumference of a markedly distorted and dropsical penis. Paraphimosis occurred as a complication.

The parchment-like feel was at this time characteristic. No inguinal glands could be palpated. Early in the eleventh week, and coincidentally with an acute inflammatory exacerbation of the erosin, one solitary inguinal gland was found enlarged. It was firm, freely movable, painless, and soon attained the size of a small hen's egg. There was no tendency to suppuration. On the seventy-sixth day other glands, the size of small hazelnuts, could be palpated, and there developed a right sided plastic pleurisy, with the usual physical signs. The patient complained of malaise, and of a physical indisposition. The temperature was 103.5°. Two days later the urine became albuminous, jaundice was noticed, and he showed evidence of a pronounced anemia. A mild, slightly papular, and sparsely distributed erythemo-papular syphilid made its appearance over the thorax, abdomen and extremities. Pharyngitis was troublesome.

Treatment. Active anti-syphilitic treatment was instituted October 26, 1902, and, in conjunction with the hypodermic administration of one-twelfth grain of bichloride, on alternate days, potassium iodide was given in ascending doses. Within two weeks' time there was a general physical improvement; the albuminuria ceased, the jaundice faded, and, together with the disappearance of the edema, the chancre healed.

Remarks. The patient's wife was not examined. However, "the elements of fallibility were carefully probed," and, when linked with a personal knowledge of the man's domestic habits, they leave scarce a doubt as to the length of the primary period of incubation.

The unusual outward appearance of the chancre was influenced indirectly by the home treatment. Primarily it was occasioned by the local action of the bacilli and their toxines. The tissues adjacent to the site of the inoculation underwent a round cell infiltration; the course of the superficial blood vessels was involved, and the increased tissue element so compressed the lymph channels as to retard the flow of lymph. Edema was the result.

The destruction in continuity of the tissue was due to direct capillary pressure (anemic necrosis). There was no lack of capillary development in embryonic tissue; no coagulation necrosis.

Obviously, these changes will explain the backward appearance of the secondary symptoms; inasmuch, as the pathological condition precluded the absorption of the toxines from the infected area.

During the eleventh week an excessive accumulation of the toxines intensified the inflammatory process; the peripheral granulation tissue was invaded, exudates were peptonized, and the tissues so rapidly destroyed that Nature was no longer able to hold in restraint, and keep circumscribed, the poison. In consequence of this change, patulous blood vessels and unobstructed lymph channels gave a ready avenue of entrance ot the virus into the general circulation. There was a blood saturation, and, synchronously, the eruption, albuminuria, jaundice, and other secondary symptoms appeared.

The ulcer at no time became secondarily infected. The pus was sero-sanguinous and never purulent.

Scars result very infrequently from the initial lesion of syphilis unless a mixed infection occurs, or the inflammatory process destroys fixed connective tissue cells, as in the sclero-edematous type of chancre. "The initial lesion of syphilis takes place at the expense of newly-formed tissue elements rather than the normal structure of the part affected." (Morton.)

The usual process of repair attends the healing of a chancre. From the inflammatory products, "embryonic" tissue is formed, and, at a later period, becomes vascularized.

There is no tendency in the "granulation" tissue thus formed to develop into "fibrous" tissue. This pathological behavior is quite discernible when we consider the low inflammatory reaction which gives the lesion its innocent appearance. Too few of the fixed connective tissue cells, endothelial cells, and large mononuclear leucocytes are concerned in the structural repair; consequently the fibroblastic element is insufficient to cause "scar" contraction.

The widespread manifestation of the secondary symptoms made pertinent the early use of the iodide. Hypodermic medication was discontinued after the first six weeks, and, since the symptoms were put in abeyance, a continuance of the mixed treatment seemed no longer justifiable. For a void of one year the patient has taken the "tonic" dose of protoiodide and has evidenced no syphilitic recrudescence.

THE FUTURE OF THE PRACTICE OF MEDICINE IN THE UNITED STATES.

BY L. G. G. DE LA MACHE, A. B. A., M. D., COLUMBUS, O.

The steps made by the practice of medicine in the United States in the last ten years make us think of the fairy tale of the ogre putting seven leagues between his boots at each motion of his ambulatory apparatus. During this period, physicians, worthy of the name, realizing the situation, seeing the Æsculapian chariot going, in some places, deeper and deeper in the rut, undertook to pull it out, obtaining from legislatures the passage of good medical laws. State medical boards, rejuvenated, coming out of their long lethargy, have enforced the application of these laws. Medical colleges have been obliged to forget that the only reason of their existence was to produce every year, in the shortest time possible, the greatest number of physicians at so much per capita, and have begun to fit themselves for the scientific training of their students.

The present regulations, which exist in some states, first, the preliminary education—high school diploma; second, the four years' course with its enforced attendance, laboratorical work and some clinical; third, the state board examination sanctioning the work accomplished—places us very far from the ten or twelve months of medical lectures of old, with attendance ad libitum, without supervision by the state, and delivered to students who rarely possessed any general education and frequently of a disgustingly gross ignorance.

A man in our days, to be able to practice medicine, must have some education and must receive a fair specific training. To reach this point, although *a priori* it seems very strange, many obstacles had to be surmounted. Against the progressive element, the reactionary, conservative one, interested in the statu quo of the existing affairs, has arrayed itself with the help of politics. The resistance in some states has been strong—powerful machinations have been put in motion to defeat good medical bills, but victory stood by the right cause.

"Magna est veritas et prevalebit—Magna est bona causa et prevaluit."

The progressive members of the medical profession have shown of what they were capable in following the laws of the most rapid evolution, upsetting an old system in quick movements, responding bravely to the demand of the times for better educated physicians—this demand resulting of the increased learning of the country in general. They have won their spurs in a conflict where glory and laurels are none, working only "pro bono publico, pro aris et focis." They have known that "*A tout coeur bien ne la valeur n' attend pas le nombre des annees,*" and they worked well and fast towards the uplifting of the standard of the profession. They can say now, "*Noblesse oblige,*" and take all the responsibilities of this motto, for more will be rightly expected from those who have done so well. They cannot go to sleep n "*deliciis Capuae,*" for progress has always foes and much remains to be done to reach the height where everything will be for the best in the world of medicine. To the near future will belong the task of bringing the medical student nearer to a scientific ideal, obliging him to be *highly* educated instead of *merely* educated, requirng for entrance to medical colleges a degree of B. A. or B. S., forcing as a consequence of this better preparation, a more minute, thorough, and longer training in the medical colleges, making of a doctor what he must be, not a mere individual, but a power. He must be not only something, he must be somebody.

PRELIMINARY EDUCATION.

Are the four years of high school with their present curriculum sufficient to make a highly educated man if we consider the deep sociology of our age and the intricacies of intellectual problems? Does this course give to the physician the superiority of knowledge that he must have over the majority of people to fill well his role? Does it fit him entirely for the specific work of the study of medicine? To this I fear we are obliged to answer, No.

The value of a diploma is in proportion to the difficulty necessary to obtain it, in proportion to its rarity. The high school diploma cannot be considered difficult to obtain and it can be found at every step of the social ladder. What is rare now is the young girl or the young man who has not passed through a high school. It does not confer any superiority of knowledge.

If we look now for a minute on the program of examination for entrance to medical colleges—the standard of this examination being that of a graduate of a four years' high school—it does not make the successful candidate a highly educated man nor does it fit him entirely for his specific studies.

For instance, under the head of science we find in the program: Botany and Zoology, Physiology or Chemistry. In consequence of this arrangement young men present themselves to medical colleges without a notion of what chemistry is, and have for two years to pass a part of the time, which ought to be entirely consecrated to studies purely medical, to study the science of Lavoisier and Gay-Sussac. History—U. S. history and Civics. The applicant may offer either Greek or Roman History or English History. Why not oblige this applicant to offer every one of these histories?

Is a man who does not know anything of the philosophers, Plato, Socrates, who has never heard of Sophocles, Euripides, who is entirely ignorant of the glories of Greece and Rome, an educated man? I do not say highly educated. Is he educated? To know two languages is to be two persons, said Talleyrand, to know the history of nations, ancient and modern, is to think with several minds, it is to live with their people, another age; it is to enlarge the horizon of thought of the student; it is to make him follow step by step the progress of the human race to our present civilization.

Foreign Language—two years of Latin. It is a short course. As to the Greek language, not a word, whereas two-thirds of our medical terms have a Greek etymology.

Supposing, now, for an instant, that the high school diploma is sufficient, is it not possible to give it a little more value in delivering it only after examination before a board composed of persons entirely independent of the high school attended by the candidates.

But the curriculum of the high school is not broad enough to prepare a doctor of medicine. His profession treats of life and he must be ready to understand it under all its aspects. A man cannot understand human existence and its various problems, neither can he discuss the laws of human destiny without having studied some philosophy. If psychology is a stranger to him he will not be able to find the mind in the body. If unfamiliar with the rules of logic, ignorant of the strength of syllogisms, will he be able to become a reasoner, a thinker? Will he be able, not to solve, but only to comprehend the great, eternal problem Gnothi seauton of the Greeks, the "Nosce te ipsum" of the Latins, know thyself?

What has made possible this monstrous anomaly, Dowie, at the end of the century of light, the nineteenth century? Who has made possible the army of Christian Scientists? The physician himself. Any manifestation out of the traditional path is a need of the time. These Christian Scientists and Dowie have taken advantage of the fact that the physicians of some years ago were not ready to treat the mental as well as the physical in their patients.

It is true that many of the followers of these sects, Christiano-medical, are ignorant, but unfortunately some of them have been recruited from the most refined and educated class and not all of them either are religious-neuro-erotics.

If we compare the preliminary preparation of European physicians we will find that after the primary education, which takes five or six years, ten more are necessary to cover the classical education or humanities. This means for the student of the German Gymnasia, of the French Lyceés, of the Italian colleges, etc., a quotidian work of ten hours for ten long months each year. At the end of this course the degree of B. A. is obtained with a special B. S. allowing the candidate to begin the study of medicine. All these years are an intellectual gavage, all parts of the subject treated are mastered thoroughly.

The student must swallow, absorb and specially digest, and his ability to scientific and literary assimilation is judged by men that he has never seen in his life, who do not know him. The powerful hand of the state is felt everywhere, governing, ruling the work to be done and sanctioning it when it has been well done.

I know that we can work faster in this country because we are more practical, but it is not less true that to obtain men used to scientific researches, used to reason, to think, having acquired an habit of individual task, prepared to receive knowledge and to keep it, is only through the classical education ending with the degree of B. A. or B. Sc.

These degrees, which are yet a minority in the hands of the people, should give to the physician the superiority of knowledge that he needs. But can all degrees be accorded the same value? The length of the course varies in many institutions, the curriculum is not always systematically arranged. Some branches are studied here and neglected there. The student himself too often frames his course. Besides this, a higher control is lacking. A body of trustees with a faculty form a college and delivers degrees. The weakness of such a system is obvious. Any human being or human institution, which is not independent, when left to itself without any higher control without fear of scrutinization and examination of its doings, will fail in many cases to fill its entire duty. *"La crainte du Gendarme est le commencement de la sagesse."* The fear of the policeman is the beginning of wisdom.

Many inferior students, through influence, have passed unfit through the meshes of examinations and received diplomas when they ought to have been counted among the corpses after the battle. As to the teaching itself in these sectarian schools, can it be considered as having all the desirable liberty of action, liberty of thought necessary. In a lecture delivered at the University of Chicago, last winter, Prof. Mabilleau, a French sociologist and director of the Musee Social of Paris, said: "If a professor is to do the highest grade of work and accomplish a maximum amount of good, he must be at liberty to think and speak as he pleases, even though his thoughts and opinions may be contrary to those of trustees and founders."

In this country educators are bound to respect certain interests and failure in this respect on their part often results in enforced resignation.

It is evident that the Professor of Political Economy of the University of Chicago cannot very well fight the trusts in his lectures and still keep the regard of J. D. Rockefeller.

Sectarianism must disappear when it is a question of preparing physicians. Our religion is one of this world, it is surrounded by facts not by legends, conjectures or dreams; our religion is humane, not divine. We find ourselves before cases where orthodoxy is obliged to lower its powerful hand, in the gesture of a blow, to crush down; we lower also our weak hand, in the gesture of a caress, to protect.

The first question generally asked about a man holding a literary degree is this one: From what college or university did he obtain his degree. If all degrees had the same value the question would be useless.

The only remedy at hand for the equalization of diplomal value is that the colleges and universities must fall more and more under state support and if this is not possible they must at least be *under state control.* A state board composed of men of recognized intellectual and scientific value, and holding regular examinations which every candidate to the degree of B. A. or B. Sc. must pass successfully before receiving it, is necessary.

The doctor of medicine being thus armed with a solid education, having a superiority of knowledge over the majority of people, will become fatally an intellectual force in the medium in which he is working, city or country. He will do more good, knowing better the human nature, being ready to analyze better the human character. With him the profession will rise in the estimation of all. The work between doctors themselves will be more genial, the confidence between one another being larger, the distinction established now by those holding a degree and those who do not, disappearing.

If the doctor is an intellectual power he will be also a social one, and if he wishes, a political one. If he wants to defend himself against quackery he must be the last.

The German Reichstag counts many doctors of medicine among its members. More than one-third of the Chambre des Députés de France is composed of physicians, the French premier being a physician, Dr. Combes. The same facts are true in Vienna and Rome.

The requirement of a degree will probably diminish the number of physicians. Will that be an evil? At present for one physician needed ten are made. Many good farmers have been spoiled to become bad doctors.

No good man will be lost; if he is really good he will understand that to build a medical education on nothing in matter of preparatory education is to build on sand. Later or sooner he will have to fill the lacunæ that a lack of general education has made in him. Men who have discovered or produced something and who lacked a preliminary education would have discovered and produced it many years earlier had they had it. Pasteur was famous before thirty years old. Koch had isolated the Bacillus of Tuberculosis before being 40 years. Virchow, as yet a very young man, was the first pathologist of the world.

The evolution of the practice of medicine must follow the commercial, artistic, social evolution of the country. These evolutions have made possible the American invasion of Europe. In many medical fields we have been obliged to borrow from the old world and are only beginning to pay our debts.

But if the progress of the last ten years continues, remembering that if our country is young, its youth has been passed in the nineteenth century, and that this century is worth five in the middle ages; giving more preliminary training to our medical students, giving to their brain a solid gymnastic for ten years in sciences, languages, history, adding to their practical genius some thoretical, making them reason and think, encouraging them by scholarships, competition, prizes, educating them to individual work, we will make the first physicians and surgeons in the world. From a broad point of view Europe represents, at the present time the theory, our country the practice; and it takes longer to make a thinker and a logical theorician than a practical man, for close to theory is utopy, may be, but also Ideal close to Practice is often interest. The next twenty years will see these two combined harmoniously in our country, and so to speak, the American medical science invasion of the old world will take place side by side with the commercial one.

Some men in Europe know it, but what is now an exception will then be a generality. In the number of the 27th of June, 1903, of the "Gazette medicale de Paris," the editor, Dr. Marcell Baudoin, in an article on the role of France in the history of appendicitis, tells how an illustrious American surgeon, Prof. Kelly, of Johns Hopkins, has come lately in France and has made before the Society of Surgery of Paris, in the French language, a lecture on a point of French medicine and surgery. He continues saying that now America is the classic country of Bibliography, that Prof. Kelly operates in the most splendid hospital of the world, that he teaches in a marvellous university, etc. "Is it not extraordinary," adds he, "to see an American, the type of the active and practical man coming to give our overworked brains, on a ground exclusively French, a lesson in French history, playing with ease in full eighteenth century, among old dusty books and forgotten collections of our first scientific journaux, etc." And the author concludes: "The future belongs to the United States. I know it since 1893, and I will tell it and tell it again as long as I live. The Latins are dying."

Is it not the rendition of the sword of the debilitated, old, too old giant, to the strong, young and victorious one? Is it not the salute of the gladiator going to die, "*Caesar, morituri te salutant*"?

And this tribute paid to medicine in the United States in the person of Prof. Kelly is worth something when made by prominent men of the country which has given birth to Ambroise Paré, Laermec, Broca, Claude Bernard, Pasteur, Charcot, etc.

(To be Continued.)

Licking County Medical Society held a meeting September 1. The following officers were elected: President, Dr. A. T. Spur; Vice-President, Dr. C. A. Foster; Secretary, Dr. H. Burner Anderson, of Newark; Treasurer, Dr. G. W. Gainson, of Utica. Censors, Drs. W. H. Knauss, B. T. Baives and C. F. Legges, all of Newark.

The Mississippi Vaalley Medical Association wlll hold its twenty-ninth annual meeting in Memphis, Tenn., October 7, 8 and 9, under the presidency of Dr. Edwin Walker, of Evansville, Ind.

Periscope of Medical Progress.

MEDICINE.

SYMPOSIUM ON HYPERTROPHY AND DILATATION OF THE HEART.

Abstract from the International Medical Magazine, April, 1903.

BY C. W. M'GAVRAN, B. S., M. D.

I.

The Causation of Hypertrophy and Dilatation of the Heart.—Dr. A. O. J. Kelly of Philadelphia says that hypertrophy and dilatation are, in the great majority of cases, the expression of the activity of more or less remote causative factors. It is an expression of the functional capacity of, and of the demands made upon, the heart; it represents the relationship between the power possessed by the heart and the work that it is called upon to perform. Dilatation, both acute and chronic, not infrequently occurs without associated hypertrophy; but whether hypertrophy ever occurs independently of dilatation may well be doubted,—most, if not all, cases of so-called concentric hypertrophy reported being examples of post mortem contraction of the heart. Hypertrophy and dilatation may affect the heart as a whole, or may be confined to one side or to one of the four great divisions of the organ. Independently of valvular diseases we may consider the following clinical varieties: (1) Acute dilatation; (2) chronic dilatation; and (3) hypertrophy, or, as it is sometimes called, dilated hypertrophy. Acute dilatation is a common event in the course of many of the acute infective diseases. Usually it is an expression of the toxemia. It is well known and justly dreaded in diphtheria, but it may be frequently observed in typhoid fever, influenza, rheumatic fever, pneumonia, etc. In some of these cases the heart, gradually failing, may suddenly dilate, although chronic dilatation is the much more common event. Acute dilatation results from sudden violent exertions—from the attempting of work altogether disproportionate to the natural and reserve force of the heart. Thus we find it in draymen and iron workers, in athletes, oarsmen, runners, football players, etc.

Chronic dilatation, occurring independently of valvular disease, is common in states of general malnutrition attended by grave secondary anemia. It attends fatty degeneration of the heart muscle, myocarditis, fibroid heart, and pericardial adhesions. It results from gradual weakness of the heart muscle, which becomes less and less able to perform its allotted work. The hypertrophy that affects especially the right ventricle is due to increased pressure in the pulmonary circulation, and is found most commonly associated with emphysema, fibroid lung, etc. It is really a part of these diseases. It may persist for years, enabling the heart to do the increased work well, and the patient may die of an entirely independent affection.

Hypertrophy of the left ventricle, occurring independently of valvular disease, results from increased pressure in the systemic circulation, and from increased activity of the heart. (1) That due to arteriosclerosis; (2) that due to renal diseases, and (3) that, for want of a better name, known as idiopathic hypertrophy of the heart. The hypertrophy of arteriosclerosis is common in advanced life. But it occurs frequently enough in relatively early life, when it is bound up etiologically with syphilis, alcoholism, plumbism, rheumatism, gout, etc. In the early stages the hypertrophied and contracted arterioles oppose a barrier to the onward movement of the blood, and high tension results. Later the arteries become rigid and more or less incapable of contracting. Thus an important adjunct to the onward movement of the blood—the activity of the arteries themselves, is lost, and the heart must compensate by hypertrophy. Ultimately the entire arterial system may become extremely rigid and permanently distended, whereupon the heart must furnish almost if not quite all the power for the movement of the blood, and this is possible only through marked hypertrophy.

The hypertrophy of the heart of renal disease is in most cases more properly looked upon as part and parcel of widespread disease of the cardio-vascular and renal systems. The etiology of the hypertrophy of the heart is the etiology of chronic interstitial nephritis, of which it is in reality a part. Thus it is especially common after the fortieth year of life. Twice as many men as women are affected. In the majority of cases the disease may be looked upon as the result of the exigencies of modern life, as the penalty of the strenuous life. In many cases the disease is directly attributable to certain autogenous or exogenous intoxications, of which the most important are alcohol, lead, and the uric and the other metabolic poisons associated with gout. Study and research have demonstrated that some at least of these cases of so-called idiopathic hypertrophy of the heart, are due to nervous causes, to persistent overactivity of the heart induced by undue irritability or over-stimulation of the nervous mechanism. Another class of cases of so-called idiopathic hypertrophy of the heart is undoubtedly due to excessive eating and drinking. There can be little doubt that excessive eating increases temporarily the specific gravity of the blood, and excessive drinking the total volume of the blood; these, together with the stimulating effect of certain metabolic products, result in temporarily increasing the blood pressure and the frequency and quickness of the heart's action. Finally, one of the most interesting causes of cardiac hypertrophy is excessive muscular strain.

In estimating the etiological significance of strain, one must take into consideration all of the factors in the individual case; and one may no more cursorily and without investigation attribute to strain certain manifest diseased conditions in a patient that he may elect to overlook the possible etiologic importance of a sudden and severe strain to which the patient himself may attribute the onset of his ailment.

Generally the first manifestations of prolonged strain consist of irritability of the heart-palpitation, dyspnea, increased pulse rate, etc., but sooner or later myocardial alterations and dilatation, with or without hypertrophy, result.

II.

DILATATION AND HYPERTROPHY OF THE HEART FROM A PHYSIOLOGIC STANDPOINT.—William S. Wadsworth of Philadelphia says we cannot afford to neglect to study the biological factors in the simplest and most matter of fact diagnosis of heart conditions.

"We must be constantly on the alert for the discovery of the biologic causes back of the symptoms and findings, or we will make the gravest errors." "We long for the days when men will know living tissues rather than dead structures, and when anatomy and physics will be seen in their normal position, as simply the beginnings of this basis of medicine." Hypertrophy is seldom truly pathologic, it is usually an indication of a normal type of reaction of good tissue to changed conditions. "I cannot recall a case that was due to simple increase of muscular elements that I could consider pathologic hypertrophy. We must bring an enlarged knowledge of the habits of living protoplasm ments that I could consider pathologic hypertrophy." We must the athlete uses drugs to get his muscles into form, and race horses are fed strychnine as a regular diet, then, and not till then, will I believe that drugs are to be generally used to act on the heart when the muscles are to be affected.

The author speaks of physiologic dilatation as distention, reserving the word dilatation for that enlargement of the cavities which is accompanied by a break in the harmony between structure and work.

"I am very sure, however, that physiologic distention has been, not rarely, mistaken for pathologic dilatation." He thinks of the heart's range as its stride, and says many a heart with a long stride will take short steps, but few with a short stride will take long steps.

One of the commonest errors is that of attributing the condition to some other symptom or condition which is the result of the true cause back of both conditions. The kidneys are blamed for many a heart case, when in reality both heart and kidneys are fellow sufferers, neither being the least to blame for the other's troubles. Anything which will raise the blood pressure must increase the work of the heart and, therefor, make for hypertrophy.

There is a limit to all hypertrophy, where it must stop, and when that is reached, if the call for increased work continues, there must be an end. The most important condition factor for heart health is the food supply. Dilatation is little more than a negative hypertrophy. When the work is too great or the food fails, or the muscle becomes diseased, then we may have dilatation, though it is by no means the most frequent termination, and is usually the result of a special condition where the muscle tends to stretch abnormally. The so-called acute dilatation is usually little more than the arrest in diastole with or without distention.

III.

DIAGNOSIS OF HYPERTROPHY AND DILATATION OF THE HEART.—Dr. Samuel Wolfe of Philadelphia is of the opinion that hypertrophy does not exist without some previous dilatation, and that dilatation seldom exists without soon leading to hypertrophy. To determine whether enlargement of the heart exists, requires the faithful consideration of all the phenomena present at the time of examination, and of all the data entering into the etiology and clinical history. In physical exploration there are many conditions to interefere. Amongst these may be thickening and hardening of the skin, as in myxedema or scleraderma; superabundant adipose tissue or serous edema; mammary or other superficial neoplasms; pathologic changes in the thickness and breadth of the ribs; pleural thickenings or adhesions or accumulations; aneurisms of the great arteries in the thorax; pulmonary changes in the shape of solidification, emphysema, abscess, cavities, or neoplasms; bronchiectasis; bronchial gland enlargements; mediastinal tumor and abscess; dilated or distended stomach or colon; liver enlargements, tumors and abscesses.

Bearing in mind all these possibilities, singly or in various combinations, with the patient either on the back with the head and shoulders moderately elevated, or sitting erect, or standing with a good light falling evenly on all parts of the front of the chest, we inspect the contour of the cardiac region. There is not necessarily bulging from hypertrophy or dilation, but this does frequently exist, the more especially in the yielding chest walls of young subjects, and in patients where malnutrition from long-continued constitutional diseases has lessened the resistance, and where either the left ventrical or left auricle is the part affected."

Note the force with which the heart during systole strikes the chest wall, as well as the extent of the stroke both to sight and to touch, the abnormally low and far left position of the apex, the extensive tremor of the greater part of the cardiac region of the chest wall, the heaving, uplifting, and diffuse impulse, and the vibratory thrill, either at the base or apex, or more or less over the whole body of the heart.

He says that, if it is known that the then violent manifestations of the powerfully acting heart have been previously present, but now have given place to a feeble apex beat, especially if displaced still more outward and probably slightly less downward, or a weak imperceptible impulse, farther and extensive dilatation of a previously greatly hypertrophied heart must be thought of.

PERCUSSION.

(1) Increased cardiac dullness, extending to the left and a little beyond the right margin of the sternum, argues for hypertrophy and dilatation of the left ventricle.

(2) Extending toward the right, it points to the right ventricle.

(3) When enlarged distinctly in both directions, it indicates envolvement of both.

(4) Increased dullness in an upward direction, especially over the sternum and adjoining left ribs and interspaces, arouses suspicion of left auricular enlargement, tending more toward dilatation than hypertrophy, the auricles being normally comparatively little capable of hypertrophy.

AUSCULTATION.

The muffled, feeble sounds, irregular and vacillating, may declare the condition of the heart walls, which must of necessity have yielded to even the most ordinary strain.

Accentuation of the second sound, whether at the aortic or pulmonary orifice, indicates pressure which probably has its source in an overloaded venous system, and consequently is productive of an increased demand upon the size of the respective receiving cavities.

PULSE.

The pulsus celer or Corrigan's pulse is characteristic of aortic insufficiency, with its enevitable hypertrophy, and when it becomes small and weak, we have the almost unfailing sign of the dilatation of the left ventrical. A venous pulse, recognized most easily in the jugulars, points with much force to tricuspid insufficiency, with its accompanying hypertrophy of the right ventricle, and probable dilatation of the right auricle.

The pulsus bigeminus, or marked irregularity, especially when there is a history of true angina pectoris and atheroma of the arteries, points strongly to myocardial disease, and probable dilatation.

"In a word, dilatation must always be looked for whenever indications of cardiac failure appear, whether due to localized conditions. While hypertrophy exists and predominates, in those stages of disease, either of the heart itself, or of such other organs as can by their condition markedly increase the strain on the heart, and to the demands of which it still fully and faithfully responds."

IV.

THE PLACE OF DRUGS IN CARDIAC DILATATION.—Dr. Henry Beates, Jr., of Philadelphia says that therapeutics is the art of adjusting means to end. In speaking of the place of drugs in cardiac dilatation the doctor deals with the entire circulatory system, and says it may be well stated that each artery is a heart for the area which it supplies. He regards most cases of dilatation as due to extra-cardiac rather than intra-cardiac factors, and whether the causative factors be extra- or intra-cardiac, the indication to be met is the diminution of the pressure before the heart, i. e., the load to be overcome.

(Galenic preparations of the (circulatory drugs) pharmacopeia should be recognized as so unpreventably varying in therapeutic power, not only in regard to especial value for which classification is a resort, but as to the active principles possessed, that their use should be abandoned. It should be recognized as a fact that no two tinctures, infusions or what not, can possess uniform power, and that, what is worse, the galenic preparation can and does cause such a complex of results as to invalidate its usefulness. It is time, therefore, that only those active principles should be used in the treatment of cardiac dilatation that are known to affect in a definite and uniform manner any one or more of the factors causing the disease.

Aconite is pre-eminently a cardiac depressant. Aconitine acts in three ways:

(1) It has a direct action upon the heart muscle.
(2) It stimulates the center of the cardio-inhibitory nerves.
(3) It influences the vasomoter center.

Aconine is a heart stimulant. Viratrum viride, arnica, antimony, and nitroglycerine each possess specific individual power, and as conditions of cardiac dilatation occasionally require the (depressants), the general principal of adjusting means to end must be observed in every particular.

In speaking of stimulants, digitalis is the one great remedy, best use digitalin, which positively controls the venous hyperemia so constant in cardiac dilatation, and thus not only restores the lost circulatory equilibrium, but because of this, overcomes the lymph stasis and edema and re-establishes absorbtion and metabolism. At times, both circulatory depressants and stimulants are advantageously used cojointly.

V.

THE SELECTION OF CARDIAC CASES FOR, AND THEIR MANAGEMENT AT, HIGH ALTITUDES.—Dr. S. Edwin Solly of Colorado Springs, Col., says that leaving out the cases where there is obviously profound and probably irremediable diseases of the valves, muscle or arteries, there are certain cases with hearts imperfect either in structure or function which are suitable for altitude treatment. In considering altitude treatment, it is not only necessary to make a correct diagnosis of state of the heart itself, but the condition and function of the other organs should be thoroughly investigated, and observe how much the relief of concomitant disorders is likely to improve the cardiac disease. Quoting from Babcock, he says:

(1) (All forms of cardiac disease do not contraindicate sojourn at a high altitude.

(2) (The ill effects of low atmospheric pressure on some forms of cardiac disease are explicable on the hypothes of acceleration of the venous flow and corresponding quickening of the heart beats.

(3) (Consequently those forms with which high altitude is likely to prove incompatible are pronounced aortic or mitral stenosis, and regurgitant disease complicated by pleural and pericardial adhesions.

(4) (On the other hand, patients with uncomplicated regurgitant lesions or arteriosclerosis, with or without myocardial changes, may endure low atmospheric pressure without injury.)

He calls our attention to the fact that, a heart weakness which gives no evidence to the physician at sea level will often be revealed at an altitude. Upon going to an altitude there is at first an acceleration of the heart's action and of the respiration, while the blood pressure is temporarily raised. Increase in the blood cells and hemoglobin begins and is completed in from four to six weeks. There is a nervous exhilaration. After the first month, the heart beats return to their normal rate, but become stronger and more even. The heart muscle becomes strengthened so that the weakness which accompanies anemia and phthisis is remedied, provided the heart is not strained by overexertion during the first four weeks.

Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting, September 21, 1903.

A regular meeting of the Columbus Academy of Medicine was held in the Board of Trade Building, September 21, 1903. Forty-seven members were present. Dr. F. F. Lawrence reported several cases of Extra-Uterine Pregnancy, presenting specimens in connection therewith. Dr. J. F. Baldwin also reported a case of Ectopic Gestation, with specimens. The subject was discussed by Drs. W. D. Hamilton, C. W. McGavran and Yeatman Wardlow.

Dr. S. J. Goodman exhibited a patient suffering from pseudoleukemia, presenting also a history of the case. The discussion was participated in by Drs. Kahn, Kinsman and Baldwin.

Drs. W. J. Woodlin, T. A. Heckler and C. F. Bonner were elected to membership in the Academy.

Regular Meeting, October 5, 1903.

Specimens of pustubes and a tubal pregnancy, with histories of the cases, were presented by Dr. J. F. Baldwin. Dr. C. W. McGavran reported a case of bulbar paralysis. The latter was discussed by Dr. H. C. Rutter. Dr. T. G. Youmans read a report of three cases of urethral stricture with operation. The paper was discussed by Drs. Starling Wilcox and Sherman Leach.

Drs. W. J. Means and C. A. Howell were elected to membership.

Those present were: F. W. Blake, President; T. G. Youmans, J. W. Clemmer, J. L. Gordon, D. J. Snyder, J. U. Barnhill, H. Hendrixson, Ola S. Hendrixson, J. A. McClure, F. McCafferty, W. U. Cole, G. Harding, Jr., J. Bishop, T. E. Courtright, H. C. Fraker, James Lisle, M. H. Virden, J. A. Riebel,

R. J. Sharp, E. T. Kuhn, H. R. Garrett, G. S. Stein, J. F. Reynolds, E. A. Hamilton, Wm. F. Bay, E. S. Oman, R. A. Kidd, Sherman Leach, C. C. Carter, F. H. Darby, H. C. Kious, C. L. Harrod, T. L. Stillman, C. M. Shepard, Geo. Stockton, Starling Wilcox, Herman Hoppe, H. A. Baldwin, W. D. Inglis, W. E. Allaman, J. H. Hanes, H. M. Platter, C. E. Turner, Harry Gabriel, Harry S. Jones, F. A. Heckler, W. Ranchous, A. E. Evans, H. M. Hamilton, W. C. Pickering, Carl Spohr, H. N. Geissinger, J. M. Thomas, C. C. Ross, A. B. Davenport, J. A. Murphy, D. R. Kinsell, J. N. Knight, G. W. Hoglan, C. D. Dennis, J. F. Jones, K. A. Norris, P. D. Shriner, S. B. Taylor, Frank Lott, I. W. Sherwood, W. L. Dick, H. A. Rodebaugh, E. Hatton, C. Persinger, E. W. Euans, N. R. Coleman, C. C. Kirk, C. S. Means, C. S. Turney, D. N. Kinsman, F. F. Lawrence, J. J. Muer, E. J. Wilson, C. M. Taylor, C. W. McGavran, J. H. J. Upham, Frank Warner, E. E. Carleton, John Donley, H. C. Rutter, R. V. Combs, E. Blackburn, C. F. Bowen, H. Harris, Wm. C. Davis, C. F. Clark, J. A. Frame, L. C. Benkert, J. W. Wright, J. H. Moninger, W. C. Linhart, J. F. Baldwin, J. M. Waters, Earl Gaver, John Rauschkolb, McKendree Smith, Dickson L. Moore, R. C. Tarbell, M. T. Dixson, L. P. Lisle, Clark T. Elder, C. A. Cooperrider, C. F. Mizer, Earnest Scott, H. H. Snively, Wells Teachnor, Andrew Timberman, A. Cooper, H. D. Farrar, L. J. Goodman and Louis Kahn.

AN ASSOCIATION OF ASSISTANT PHYSICIANS OF THE OHIO STATE HOSPITALS.

An Association of Assistant Physicians of the Ohio State Hospitals was organized July 16, 1903, with twenty-five charter members. The meeting was held at the Columbus State Hospital, and was addressed by Dr. George Stockton, superintendent of the Columbus State Hospital; Dr. A. P. Ohlmacher, superintendent of the Ohio Hospital for Epileptics at Gallipolis; Hon. H. H. Greer, president of the board of trustees of the Columbus State Hospital, and by others. Several superintendents sent words of encouragement to those interested in the movement.

The purpose of the organization is to improve the medical work in the state hospitals by whatever means the association is able to use.

The membership consists of active, associate and honorary members. The active members must be assistant physicians of at least one year's service in a state hospital of Ohio. These only will be allowed to vote and hold office. Associate members consist of superintendents, assistant physicians of less than one year's service, and of registered physicians who are connected with these hospitals as internes. Honorary membership may be conferred upon ex-superintendents, ex-assistant physicians and such other respectable physicians as have shown a special interest in the treatment and care of the insane.

The second meeting of the Association of the assistant physicians of the Ohio State Hospitals was held at the Toledo State Hospital October 7 and 8, 1903.

There were thirteen active members present, representing the Cleveland, Columbus and Toledo State Hospitals, and the Ohio Hospital for Epileptics.

Dr. H. A. Tobey, superintendent of the Toledo State Hospital, gave an address of welcome, and spoke on the "Relation of the Assistant Physician to the Hospital Management." The following papers were read: "Suggestions on the Nature and Treatment of Delirium Tremens," by Dr. James F. Kelly, Cleveland; "Dementia Precox," Dr. William H. Pritchard, Gallipolis; "A Case of Chorea Insaniens, with Report of Autopsy," Dr. Isabel A. Bradley, Columbus; "The Use of Thyroid Extract in the Treatment of Insanity With Report of a Case," Dr. Nelson H. Young, Toledo; "General and Special Methods in the Postmortem Examination of the Brain and Spinal Cord," Dr. Walter Buhlig, Gallipolis.

The papers were all freely discussed by members of the association and every one present was enthusiastic over the benefit derived from the meeting.

The following resolutions were adopted by the Association:

We, the Association of Assistant Physicians of the Ohio State Hospitals, believing that a well directed central laboratory for teaching and research in connection with the state hospitals would be a most efficient means of advancing the medical work in these hospitals, and of fostering a scientific spirit among the physicians connected with the various state hospitals, and believing that such an institution would materially enlarge our knowledge of the nature, cause, treatment and prevention of the diseases for the care of which these hospitals are established, thus enabling us to prosecute our work with more satisfaction and success and believing that the scientific contributions from it would bring credit and renown to the State of Ohio; therefore, be it

Resolved, That the Association of Assistant Physicians of the Ohio State Hospitals desires to co-operate with the committee on State Pathological Institute of the Ohio State Medical Association; and be it

Resolved, That the Association of Assistant Physicians of the Ohio State Hospitals, as an organization and individually, pledges itself to support in any way the promotion of the plans having for their object the establishment of a State Pathological Institute of Ohio; and be it further

Resolved, That the Legislative Committee of the Association of Assistant Physicians of the Ohio State Hospitals be instructed to use its best endeavors to aid the movement for a State Pathological Institute whenever and wherever opportunity arises.

The officers of the Association are: G. T. Harding, Jr., President, Columbus; J. T. Kelly, Vicepresident, Cleveland; Isabel A. Bradley, Secretary, Columbus; Nelson H. Young, Treasurer, Toledo. Executive Committee, Ralph W. Holmes, Gallipolis; Geo. R. Love, Toledo; P. W. Tappan, Dayton; Isabel A. Bradley and G. T. Harding, Jr., Columbus. Legislative Committee, Earl E. Gaver, Columbus; K. S. West, Cleveland; E. G. Brown, Massillon. The next meeting will be held in April at Gallipolis.

CANTON MEDICAL SOCIETY.

The Canton Medical Society was called to order at 8:20 p. m., Friday evening, October 2. In the absence of President Smith, Vicechairman Hart occupied the chair. Secretary Harry March read the minutes of the previous meeting, which were approved.

The censors having acted favorably upon the applications of Drs. L. D. Stoner and W. H. Weaver, they were elected to regular membership. The applications of T. H. Shorb, of Canton, O. M. U., 1903; W. R. Spratt, of Magnolia, Starling Medical, 1865, and J. E. Shorb, of Canton, O. M. U., 1903, were received and referred to the board of censors for report at the next meeting.

The board of censors was empowered to arrange for the annual banquet for a convenient date in January.

Dr. W. J. Means, of Columbus, was then introduced and was warmly received. He discussed "The Diagnosis and Treatment of Prostatic Hypertrophy," dwelling at considerable length upon the diagnostic points. He considered the palliative treatment to an adequate extent exhibiting instruments and explaining the differential indications for their use. Under radical treatment Dr. Means advised operation on all very troublesome prostates, as indicated in a strangulated hernia—that is, deeming operative interference equally imperative. He illustrated his ideas with drawings and exhibited several specimens of prostates he had removed.

The discussion of the lecture brought out some new points, questions being asked Dr. Means by Drs. Fraunfelter, Kohler, Walker, Marchand, E. J. March and DeWitt. At the conclusion of the discussion a unanimous vote elected Dr. Means an honorary member of the society and assured him of the appreciation of the society.

Eighteen names were added to the poor pay list and four were removed, the parties having paid up.

At the nearby Criterion cafe, covers had been prepared for fifty persons and when the regular session was adjourned, the long table was soon filled. Following the supper, a social session continued for an hour or more. Brief addresses were made by Drs. Marchand, J. S. Schilling, E. J. March and others. Dr. Means also spoke, again expressing his pleasure at the good cheer manifested by the profession. The singing of "He's a Good One," led by the strenuous basso of Dr. Marchand, Dr. Means being the "He" brought the social session to a pleasant termination. F. E. HART, Chairman Pro-tem.

HARRY A. MARCH, Recording Secretary.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The Thirty-first Annual Meeting of the American Public Health Association will be held at Washington, D. C., beginning October 26 and continuing for five days. The Executive Committee has selected the following topics for consideration, but papers will be received upon other sanitry subjects: Purification of Water Supplies, Disposal of Industrial Wastes, Purification and Disposal of Sewage, Disposal of Garbage, Animal Diseases and Animal Food, Car Sanitation, Steamboat and Steamship Sanitation, Etiology of Yellow Fever, Tuberculosis, Plague, Demography and Statistics in Their Sanitary Relation, Cause and Prevention of Infectious Diseases, Infectious Period of Communicable Diseases, Public Health Legislation, Cause and Prevention of Infant Mortality, Disinfectants and Disinfection, Production and Free Distribution of Vaccine, Teaching of Hygiene and Granting of Diploma of Doctcor of Public Health, Snitary Aid Societies, Canteen in Armies.

Section of Bacteriology and Chemistry.—Standard Methods of Water Analysis, The Value of a Bacterial Standard for Municipal Milk Supplies, On Diagnostic Procedures, The Significance of Bacillus Coli in Water Supplies, On Bacillus Tuberculosis in Man and Animals, On Laboratory Tests of the Efficiency of Water Filters, The Action of Formaldehyde as a Disinfectant, On Antitoxic and Immunizing Sera, The Relation of Protozoa to Disease, The Varieties and Action of Anaerobic Bacteria in Sewage.

The Columbus Board of Health at its October 2d meeting elected the following District Physicians: Dr. J. A. Murphy, for the East Side; Dr. H. B. Blystone, of N. High street, for the North Side; Dr. G. H. Schauweker ,of S. Front street, for the South Side; Dr. S. W. Cole, of W. Broad street, for the West Side.

One hundred and ninety thousand dollars has been given by Pietro Cartoni for a sanitarium for tuberculosis near the city of Rome.

THE COLUMBUS MEDICAL JOURNAL.

A Monthly Magazine of Medicine and Surgery.

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Communications relating to the editorial department should be addressed to Dr. J. U. Barnhill 248 East State Street; those relating to the business management should be addressed to Dr. W. J. Means, 715 North High Street.

OCTOBER, 1903.

Editorial.

RECIPROCITY IN MEDICAL LICENSURE.

The State Board of Medical Registration and Examination of Ohio adopted the following resolution at its regular meeting on October 6, 1903:

"The Ohio State Board of Medical Registration and Examination will dispense with the examination of a candidate presenting a license from another State Board, or from the Board of Examiners of the District of Columbia, issued after an examination upon which a general average of 75 per cent. was obtained, upon payment of the fee, fifty dollars, required by law; provided, the applicant was, at the time of such examination, the holder of a diploma from a medical college recognized as in good standing by the State Board of Ohio; and provided, that the applicant has complied in all other particulars with the laws of Ohio governing the practice of medicine and surgery, and the rules of the Ohio State Board of Medical Registration and Examination; and provided that the State Board issuing such license will in like manner accept the license issued by this Board."

At the same meeting six certificates were issued under the exemption clause, and the certificate of S. Burkham, of Nevada, Wyandot Co., was revoked on charge of being addicted to the liquor habit to such a degree as to render him unfit to practice medicine.

EXAMINATION FOR ENTRANCE TO MEDICAL COLLEGES.

The following is the result of the September examination at Columbus for entrance to medical colleges furnished us by Professor Charles E. Albright, Examiner:

Number certificates issued on credentials, 55; number certificates issued on re-examination, 2; number cards issued on examination with conditions, 6; number certificates issued on removal of conditions, 6. Total, 69.

Number of new applicants examined, 13; number applicants passed without conditions, 2; number applicants passed with conditions, 6; number applicants failed, 5; number applicants withdrawn 0.

Failures occurred in the following branches: Literature, 2; Rhetoric, 4; Composition, 0; Physics, 0; Botany, O; Zoology, 0; Algebra, 7; Geometry, 8; United States History, 1; Physiography, 0; Chemistry, 0; Latin, 10.

A UNITED PROFESSION IN COLUMBUS.

The election of Dr. W. J. Means to membership in the Columbus Academy of Medicine, on Monday evening, October 5, was the culmination of a long, bitter and malicious fight. The victory was complete and the final triumph pronounced. The doctor's enemies, few in number, but relentless and malevolent, unyieldingly contested every avenue of entrance, whether by fair or foul means. This little band of pharisees was composed of those (first) who had imaginary grievances growing out of dissentions in medical college circles, (second) those who were professionally jealous of Dr. Means.

When the new order in medical society formation was adopted, requiring membership in a local society as a prerequisite to membership in the state and national organizations, it was to all intents and purpose to the liking of this little coterie of enemies. They boasted that it was within their power to deprive Dr. Means of membership in the local society, thereby shutting the doors of the major organization against him.

The Central Ohio Medical Society, of which Dr. Means had been an active member for many years and through which he had an accredited membership in the state society, was no longer in existence according to the new rules of reorganization. The Columbus Academy of Medicine was, therefore, the only accredited organization in Franklin county and five negative ballots were sufficient to defeat a candidate for membership. In view of this fact it was easy for a few enemies to defeat a candidate, regardless of his standing in the profession. To overcome this injustice and to defeat the asinine purposes of the doctor's enemies, the Franklin County Medical Society was organized. This society had a membership of over one hundred of the leading physicians of the county. Application was at once made for recognition to the State Society. Before final action was taken a plan of merging the Academy of Medicine and the Franklin County Medical Society was agreed upon in the interest of harmony.

All the members of the Franklin County Medical Society who were not already in the Academy of Medicine and who had not been up for election and defeated were transferred to the Acadmey of Medicine. A new constitution in the meantime had been adopted with more liberal provisions for membership.

Relying upon the justness of his cause, the more liberal provisions controlling membership and on the strength of the ex-members of the Franklin County Medical Society, his application was filed asking for membership. A relentless campaign was carried on against him, which resulted in a defeat for his enemies and a triumph for Dr. Means. The enemy continued their malicious attacks and opposition until the last ballot was cast.

The victory of the doctor over his traducers was a great triumph, not only for himself, but the profession at large. The analysis of the final vote is most gratifying when it is observed that the doctor had seventy-six friends, and the combined force of the enemy numbered only thirty-three.

If a man's worth can be estimated by the number and loyalty of his followers, Dr. Means has a standing in the profession of Franklin county of which any man might be proud.

Besides having been a member of the Central Ohio Medical Society and the Franklin County Medical Society, he has been for many years an active member of the American Medical Association, and is now serving his second term as President of the Judicial Council of that body.

It is to be hoped this will end the dissentions in the profession here and that peace and harmonv may prevail.

TUBERCULOSIS AND ITS RELATION TO THE MILK SUPPLY.

.In medical literature, the play of relations between bovine and human tuberculosis has created much discussion, especially since the ipse dixit of Koch, denying the inter-transmissibility of this disease, between cattle and human beings. If Koch is correct, there is no danger of taking consumption from milk or beef. If he is mistaken we have to contemplate the awful thought of innumerable, preventable deaths among children. Certainly, we all wish that the professor may be correct, but the ambition of scientists is to determine the facts involved.

Dr. Adami, McGill university, Montreal, in an address before the Congress of Tuberculosis, said: Bovine tuberculosis can be transmitted to man, and this either through wounds or through the digestion tract. Save in the rare cases of wound infection there is a significant lack of evidence that bovine tubercle bacilli infect adult human beings. It is infants and those of early age who are liable to be infected by the tubercle through the agency of milk. The statistics bearing upon the continued frequencv of tuberculosis in children, and upon the relative frequency of intestinal and abdominal tuberculosis in children, must be accepted as conculsive evidence upon this point. The infection is brought about only by the employment of milk of cattle, which are very extensively diseased more especially those suffering from udder disease. Such milk contains enormous quantities of bacilli. Animals showing physical signs of tuberculosis and above all, those exhibiting udder tuberculosis, should be condemned and under no circumstances should their milk be used for food."

Dr. Shrady, editor New York Medical Record, commenting on Dr. Adami's article, says: "Dr. Adami is no partisan, but has approached the subject with a perfectly open mind, and the deduction drawn by him as the result of investigations, observation and a study of recent literature on the subject, are in a high degree reasonable. The Medical Record, soon after the London Tuberculosis Congress had ended, took exception to Professor Koch's pronouncement on more than one ground. Attention was drawn to the fact on several occasions that even if Professor Koch were right as to the non-transmissibility of tuberculosis from cattle to man he should have gravely warned farmers, milk dealers and the general public that precautions to guard against impure milk should be on this account, in no wise relaxed, as disease other than consumption may be disseminated by means of milk, not to mention the menace to child life by the contaimnated article."

Professor McCard, of the Veterinary College, Paris, says: "All comparative experiments in every country prove that the bacillus of bovine tuberculosis is far more virulent for all species of animals than the bacillus of human origin. No matter what the process of infection adopted, no matter what the species of animal experimented on, the bovine bacillus kills more quickly and more surely than does the human bacillus. * * * Such wounds have generally developed tuberculosis lesions which have usually been cured by a slight operation, but occasionally such lesions have generalized and caused the death of the victim."

"With all mammalia the ingestion of large quantities of milk from cows with udder disease speedily provokes tuberculosis of the intestines, the peritoneum and the mesenteric glands. All mammalia, inculding monkeys, become tuberculous after ingestion of milk from tuberculous cows. It would be absurd to contend that man alone offers an exception to the rule. The array of well known authorities, who hold that bovine consumption can be communicated to man and that the ingestion of milk from cows with tuberculous udders may convey tuberculosis to those who drink it, should be sufficient to warn the public that there is danger from this source, which needs to be carefully guarded against."

D. E. Salmon, D. V. M., Washington, D. C., in government employ on the bureau of animal industry, for many years; a scientist of wide reputation and large attainments in this special field, as chairman of committee on animal diseases and animal food, before the American Public Health Association, 1901, made an exhaustive report and also in 1902. To show the extent of tuberculosis among milch cows he gives the experience of eleven states in the use of the tuberculin test in 147,879 cattle, showing an infection in 17 per cent. of the cases.

The beef cattle showed less than one per cent. under federal inspection. After reciting a number of cases of accidental inoculation of man with bovine bacilli, the author continues: "These are clear cases and could be multiplied if necessary, to add strength to the evidence. These cases demonstrate the susceptibility of man to infection by bovine bacilli inoculated into the skin, in some cases the disease ended in death."

One case is given, in abstract, out of many of like character presented by the report of Dr. Salmon. Twelve girls in a boarding school contracted intestinal tuberculosis. Five died. The family and individual histories in all cases were exempt from the disease. The poison was traced in an autopsy to the single cow which for a year had furnished the school with milk. There was extensive disease of the intestines and udder.

The author says: "These are examples of clinical evidence which might be greatly extended, but all are, of course, open to the objection that we do not know absoluteely that the disease was caused by the bovine bacillus. However, the occurrence of abdominal tuberculosis soon after the use of milk from tuberculous cows is a coincidence which justifies us in accepting the cases as strong circumstantial evidence, not of themselves demonstrating the communicability of bovine tuberculosis, but taken with other evidence, making a case which it is difficult to contest."

Ravenel, another investigator, concludes a long and detailed study by saying that: "The evidence at hand forces us to belief that human and bovine tuberculosis are but slightly different manifestations of one and the same disease, and that they are intercommunicable. Bovine tuberculosis is, therefore, a menace to human health. We are not in a position at present to define positively the extent of this danger, but that it really exists cannot be denied. In the past there has, probably been a tendency to exaggeration, but however great this may have been, it does not now justify any attempt at belittling the risk and it is folly to blind ourselves to it. The eradication of bovine tuberculosis is amply justifiable from a purely economical standpoint; viewed in its bearing on human health it becomes a public duty."

John J. Repp, another authority, makes deductions among which is found: "The use of the milk and meat of tuberculosis animals can be dangerous to man. As to the meat, the flesh of animals used for food is not good if the animal is extensively effected. If only slightly effected the meat is wholesome if the affected parts are eliminated and the meat cooked. The use of milk from a cow with tuberculosis udder exposes the subject to the disease.

"The milk of a tuberculosis animal without udder lesions may be dangerous. As it is difficult to determine those cases in which it is dangerous, it is best not to use the milk of any tuberculosis animal."

Professor Osler, of Johns Hopkins University, says: "Of late years the experimental proofs have been entirely conclusive. It was formerly thought that the cow must present tuberculosis disease of the udder, but Ernst has shown that the bacilli may be present and the milk be infective in a large proportion of cases in which there is no tuberculosis mammitis; an observation made also by Hirsberger and others. This author cites the interesting fact that an owner of a herd known to be tuberculous withdrew the milk from market and used it without boiling to fatten his pigs, which almost without exception became tuberculous so that the whole stock had to be slaughtered. There is no reason to believe that the young children or even adults are less susceptible to the virus than calves or pigs, so that the danger of this disease from this source is real and serious."

"The great frequency of intestinal and mesentric tuberculosis in the children no doubt, here finds its explanation. As noted in Woodhead's analysis of 127 cases of fatal tuberculosis in children the mesentric glands were involved in 100.

"Referring again to Dr. Salmon's exhaustive report to the American Public Health Association in his conclusive remarks concerning Koch's denial of the transmissibility of bovine tuberculosis to man, says: "To expect that the definite and positive evidence from accidental inoculation, chemical observations, vital statistics and post-mortem records, will be discussed in order to adopt such hasty generalizations is ridiculous. In the end even this dramatic promulgation of a dangerous doctrine practically unsupported by facts, will bring good to the cause of sanitation. What we must guard against is the influence of the sensationalists and of those very impressionable persons who are ever ready to accept a new doctrine which comes with the sanction of authority, no matter upon how slight a foundation of fact it rests. In this case it is reassuring to find that the congress not only did not accept the doctrine, but declared that medical officers of health should continue to use all the power at their disposal, and relax no effort to prevent the spread of tuberculosis by milk and meat."

All the investigations coming under my observation go to prove that tuberculosis is very prevalent among cattle, especially old dairy cows, that the germs of this disease, particularly in advanced stages, where the udder is affected, are transmissible to mankind, especially children, by means of milk; that statistics gathered world-wide from eminent authority in the treatment of diseases of children go to prove a large mortality from tuberculosis milk.

Locally, veterinary and medical testimony might be produced to support the doctrine here advocated. In the veterinary department of O. S. U., this doctrine is put to practice as evidenced by the fact that the dairy herd under its care is kept free from tuberculosis by the use of the tubercular test in the cattle.

J. W. C.

THE INSTRUCTIVE DISTRICT NURSING ASSOCIATION OF COLUMBUS, OHIO.

The fifth annual report (1903) is an index of the great good that is being accomplished by this organization. For the year ending January 31, 1903, the disbursements were $3569.19.

The work done by the Association for the year is indicated in part by the following report: Total number of patients cared for, 635; total number of new patients cared for, 598; number improved and recovered, 414; deaths, 56; sent to hospitals and dispensaries, 52; free doctors sent, 64; prescriptions filled, 218; tonics given, 163; garments given, 456; glasses of jelly and jars of fruit, 204; patients sent to Diet Kitchen, 120; persons reported for relief, 141; emergency nurses used, 29; total number of visits made, 6366; total number of full baths given, 1481;

total number of partial baths given, 738; total number of surgical dressings, 1743; total number of working visits, 3962; sheets, blankets and spreads loaned, 130; pillow cases loaned, 72; nightgowns loaned, 170; towels loaned, 41; cot-bed loaned, 1; wheel chairs loaned, 8; crutches (pairs) loaned, 2; sick-room necessities, 64.

DISEASES CARED FOR.

Maternity, 51; waiting maternity, 7; miscarriage, 11; gynecological, 8; surgical, 63; burns, 8; hernia, 8; pneumonia, 33; influenza, 23; eye and ear, 11; throat trouble, 5; stomach and bowel trouble, 13; malnutrition, 10; total, 251.

Cancer, 18; kidney and bladder trouble, 10; rheumatism, 16; heart trouble, 11; old age, 28; paralysis, 17; total, 100.

Typhoid fever, 31; tuberculosis, 43; measles, 33; whooping cough, 3; ophthalmia, 5; erysipelas, 5; total, 120.

Aspyxia, epilepsy, pleurisy, asthma, appendicits, rachitis, locomotor ataxia, septicemia, etc, 39; undiagnosed, 32; total, 71. Total number of cases cared for, 542.

The nurses observe the following rules in caring for infectious cases:

When a nurse is called to an infectious case, she must not enter sick room if she finds someone caring for patient; but she must ask for the doctor's orders and find out if the friends in charge understand how to carry them out. If, however, the personal care of the visiting nurse is needed, she must visit all her other patients first. She removes her outdoor garments before entering sick room, putting on, if possible, her rubber coat, leaving outside, also, her bag of supplies. After giving patient all necessary care, she returns to her room, sprays her coat and bonnet with bichloride spray, washes her hair with boracic acid solution, takes full bath and puts on clean clothing, hanging out in the open air all clothing worn in sick room before sending to laundry.

In taking patient to infectious hospital, patient must be wrapped, over all other garments, with clean sheet, another sheet laid over seat, all mats, rugs, etc., first removed from carriage; the nurse wearing her rubber coat and, if possible, an old hat or bonnet that can be thrown away. The keeper of the carriage is to be instructed by nurse to spray inside of carriage with carbolic or bi-chloride spray or to burn therein a sulphur candle.

The office of the Association is at 40 South Third street and Miss Strong is in the office from 8 to 9 and 1 to 2 p. m. Citizen's 'phone, 4049. The Associated Charities in the same building, having both phones, are always willing to take messages when the office is closed.

The work is non-sectarian and does not belong to either school of medicine or to any hospital, all patients being treated alike. No charge is made for the services of the nurse except to those who can afford and are willing to pay a small fee.

Medical News Notes.

Dr. T. W. Rankin has returned from his European trip.

Dr. Roy E. Smucker, of the Ohio Medical University in 1903, has located in Shelby, O.

Dr. R. E. Skeel has been elected Dean of the College of Physicians and Surgeons of the Ohio Wesleyan University.

Dr. P. J. Shepard, of Grant hospital, has gone to Germany to take a special medical course. He is accompanied by his wife.

In the University of Berne, Zwitzerland, of the 451 students enrolled, 252 are women;, almost all of whom are Russians.

Dr. E. S. Evans has moved his office from the Lazarus Block to the southwest corner of Long street and Cleveland avenue.

At the August meeting of the Marion County Medical Society, Dr. A. M. Crane read a paper on "Hematology in Tuberculosis."

Dr. Mary M. Dyer, osteopathic physicin, 611 Outlook Bldg., graduate from Dr. Still's school, Kirkersville, Mo. Diseases of women and children a specialty.

JOURNAL WANTED.—No. 11, Vol. 2 (May, 1884), of the COLUMBUS MEDICAL JOURNAL is wanted to complete our file. Anyone supplying this number will confer a great favor, and will receive pay for same.

Recent Medical Books.

Books Received During September.—"Consumption," by Lawrence Flick, M. D. Published by David McKay, Philadelphia, Pa.

"Diseases of Women," by Ashby. Published by Williams & Wilkins.

"Progressive Medicine," by Hare & Laudis. Published by Lea Bros. & Co.

"Gynecology," by Pryor. Published by D. Appleton & Co.

"Nurses Guide to Surgical Bandaging and Dressings," by W. J. Smith. Published by J. B. Lippincott Co.

"Dunglison's Medical Dictionary," by Stedman. Published by Lea Bros. & Co. M.

A Dictionary of Medical Science. Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc., by Robley Dunglison, M. D., LL. D., Late Professor of Institutes of Medicine in the Jefferson Medical College of Philadelphia. New (twenty-third) edition, thoroughly revised, with the pronunciation and derivation of the terms, by Thomas L. Stedman, A. M., M. D., Member of the New York Academy of Medicine. In one magnificent imperial octavo volume of 1224 pages, with about 600 illustrations, including 85 full-page plates, mostly in colors, with thumb-letter index. Cloth, $8.00 net; leather, $9.00 net; half morocco, $9.50 net. Lea Brothers & Co., Philadelphia and New York.

A dictionary which has held its own through twenty-two editions and has satisfied the requirements of the medical profession for three-quarters of a century, has become an indispensable institution. The very name, Dunglison, has long been synonymous with medical lexicography and through this crowning work of his life this great genus, whose knowledge embraced all departments of the science, has been enrolled with Johnson, Webster and Worcester.

A glance through the successive editions of this work brings home the marvelous advances of medicine during the past seventy-five years, a gain more than equal to the total medical knowledge recorded during the entire previous history of mankind. The number of words new in this edition, after the exhaustion of its predecessor in the short space of three years, shows that each day adds terms to the science. Progress accelerates itself, and as medicine is now definitely proceeding in the line of precision, its terminology is growing not only in quantity, but also in quality, so that it becomes increasingly important for both students and practitioners to keep always conversant with the latest words and meanings.

A distinguishing feature of the successive editions of this dictionary has been the explanatory fulness and encyclopedic nature of its definitions. As the author wrote in the preface to the second edition his object "was not to make the work a mere lexicon or dictionary of terms, but to afford under each a condensed view of its various medical relations, and thus to render the work an epitome of the existing condition of medical science." It has been the editor's purpose to preserve in the new matter this characteristic of the work, and not to give merely a bald definition or array of synonyms, but to explain the subject denoted by the term.

This dictionary is intended to be a book of universal service for all men, undergraduates and graduates, interested in any of the medical sciences. M.

A TEXT-BOOK OF OPERATIVE SURGERY. Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Phar. M., M. D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons New York; Late Visiting Surgeon to Charity Hospital, New Orleans, etc. Handsome octavo of 984 pages, with 559 Illustrations, entirely original. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $6.00 net; sheep or half morocco, $7.00 net.

This work completely covers the surgical anatomy and operative technic involved in the operations of general surgery. It is constructed on thoroughly new lines, the discussion of the subject being remarkably systematized and arranged in a manner entirely original. A feature of the work to which we would call especial attention, and for which alone it is well worth the price, is the wealth of magnificent illustrations. There are 559 of them, all entirely original. They depict the progressive steps in the various operations detailed with unusual clearness, and at the same time represent the highest artistic excellence. The text is fully abreast of the latest advances in surgery. all the recent improvements along the line of technic being adequately discussed. Another feature distinguishing it from other works on operative surgery, is the treatment of the anatomic side of the subject in connection with the operative technic. The illustration will be found of particular assistance in this connection, the muscles, bones, etc., being clearly indicated, together with the lines of incision. It is a magnificent work.

This is a magnificent work, with elegant illustrations and classical texts. We predict that it will be found one of the most useful texts published. B.

A TEXT-BOOK OF OBSTETRICS. By J. Clarence Webster, M. D. (Edin.), F. R. C. P. E., F. R. S. E., Professor of Obstetrics and Gynecology, Rush eMdical College, in Affiliation with the University of Chicago; Obstetrician and Gynecologist to the Presbyterian Hospital, Chicago; Obstetrician to the Chicago Lying-in-Hospital and Dispensary, Chicago, etc., etc. Handsome octavo volume of 767 pages, with 383 illustrations, 23 in colors. Philadelphia, New York London: W. B. Saunders & Company, 1903. Cloth, $5.00 net; sheep or half morocco, $6.00 net.

The latest text-book on obstetrics is that of Prof. J. C. Webster. In its preparation, the author has had consideration of the needs of both the scientific student and the active practitioner.

The anatomic changes accompanying pregnancy, labor, and the puerperium are described more fully and lucidly than in any other text-book we have seen. The exposition of these sections is based mainly upon studies of frozen specimens, in which department the author has had a larger experience than any other worker. Unusual consideration is given to embryologic and physiologic data of importance in their relation to obstetrics. The practical aspects of the subject are presented in such a manner as to be of direct assistance to the clinician. Diagnosis and treatment are presented with rare exactitude and clearness, particular consideration being given to those methods that have proved most successful by experience. The illustrative feature of the work is far above the average. Evidently great care was taken in the selection of the illustrations, aiming to meet the varied requirements of both the undergraduate and the practicing physician. Many of the illustrations are entirely original, having been made especially for this work, and never having appeared in any oth r text-book. The work throughout expresses the most advanced thought of the day, and the statements can be relied upon as accurate.

The drawings are excellent and the text concise and practical. We take pleasure in recommending the work to medical students and practitioners. B.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued monthly. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology Chicago Post-Graduate Medical School. Volume IX. Physiology, Pathology, Bacteriology, Anatomy, Dictionary. Edited by W. A. Evans, M. S., M. D.; Adolph Gehrmann, M. D.; William Healy, A. B., M. D. August, 1903. Chicago: The Year Book Publishers, 40 Dearborn street.

The ninth volume of this excellent series embraces the subjects of Physiology, Pathology, Bacteriology, Anatomy and Dictionary of new words, the latter filling twenty-eight pages. The whole series are intended primarily for the general practitioner; the arrangement in the several volumes being of special value to him. While this is true, many of them will be found to contain more material on the specialties than other year books. They are of convenient size and are furnished with excellent diagrams and illustrations. The pages of Pathology and Bacteriology in this volume are exhaustive and valuable. B.

NURSES GUIDE TO SURGICAL BANDAGING AND DRESSING. By Wm. Johnson Smith, F. R. C. S., Principal Medical Officer Seamen's Hospital, Greenwich. Publishers: J. B. Lippincott Co., Philadelphia, Pa. Price, 75 cents.

This small brochure contains many useful hints for a nurse in the treatment of wounds, wound infection, antiseptic and aseptic surgery. M.

CONSUMPTION A CURABLE AND PREVENTABLE DISEASE. What a Layman Should Know About It. By Lawrence F. Flick, M. D. Davis McKay, publishers, 1022 Market street, Philadelphia, Pa. 1903.

The author states in his preface, that "much unnecessary fear to the contagion of tuberculosis has been stirred up and the hardships of the consumptive poor have increased correspondingly. The public have been thrown into a panic, so that people turn out the poor consumptive as a pariah, without regard to what shall become of him. All sense of propriety and responsibility seems to have been lost in the absurd fear." For the purpose of bringing about a better understanding of things and in the hope of setting matters somewhat to rights again, this little volume is offered to the public. M.

A COMPEND OF DISEASES OF THE SKIN. By Jay F. Schamberg, A. B., M. D. Third edition revised and enlarged, with 106 Illustrations. P. Blakiston's Son & Co., 1012 Walnut street, Philadelphia, Pa. 1903.

The editor states in his preface, "That the little book herewith presented is designed for the use of practitioners and students, as a rapid referenc work and key to the study of dermatology."

The author has followed Duhring's classification in the presentation of the subject, although deviations in connection with one or two diseases, occur. M.

A NURSE'S HAND-BOOK OF OBSTETRICS. For Use in Training Schools. By Joseph Brown Cooke, M. D. Publishers: J. B. Lippincott Co., Philadelphia, Pa. 1903.

This book is a technical work for nurses. It supplies a text that meets the requirements of the pupil nurse in all that pertains to the study of obstetrics.

The keynote of success in obstetric practice lies in a thorough knowledge of the patient's exact condition long before labor occurs and in ample preparation for delivery and after care, so that the labor may be conducted with every attention to aseptic detail and modern surgical method.

The author's long experience as a teacher in a training school for nurses has made him familiar with the needs of a good text-book.

There is a profusion of illustrations that are suggestive lessons to the reader. M.

DWIGHT'S EPITOME OF MEDICAL JURISPRUDENCE. A Manuel for Students and Practitioners. By E. W. Dwight, M. D., Instructor in Legal Medicine, Harvard University. In one 12mo volume of 249 pages. Cloth, $1.00 net. Lea's Series of Medical Epitomes. Lea Brothers & Co., Publishers, Philadelpha and New York. 1903.

Dr. Dwight has taught legal medicine to the medical students of Harvard University for several years. He knows exactly the needs of the student and practitioner, and this book is the outcome of his knowledge and experience. The practitioner or student who thoroughly knows the contents of this book will be well equipped for almost any of the medico-legal emergencies which may and do come to every practising physician. M.

A DIAGNOSTIC CHART OF TUMORS AND PSEUDO-TUMORS. Battle tle & Co. have just issued a complete and unique chart on the above subject, compiled by Dr. Edward C. Hill from standard works on surgery and pathology.

This chart shows almost at a glance for ready comparison all that could be learned in a diagnostic way from the perusal of hundreds of pages of ordinary text. Battle & Co., 2001 Locust street, St. Louis, Mo., will send this chart to any person who desires it. M.

"The physician and his Patient, and the Business and Social Relation Which Should Exist Between Them," is the title of a small booklet by Dr. A. E. Lawrence which deserves an extended circulation. The work is replete with valuable information for every physician. B.

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THE QUICK AND THE DEAD.*

BY DICKSON L. MOORE, A. M., M. D.,

Professor of Diseases of Children, Starling Medical College; Physician to Children's Hospital, Columbus, Ohio.

> "And so from hour to hour we ripe and ripe,
> And then from hour to hour we rot and rot,
> And thereby hangs a tale."

It is my wish to call your attention to some of the phases of a problem which in many of our large cities is forcing its claims upon their people—a problem which sooner or later will demand a new solution from all growing communities. I refer to the manner of disposal of the dead.

Methods of dealing with the human body after the spark of life has left it have differed among different races and periods of the world's history. It is probable that primeval man made no attempt to dispose of his dead other than to carry him to a secluded spot, where soon the birds and beasts of prey mutilated and destroyed the corpse. Whether in those prehistoric days, the custom of burying in the earth or of burning with fire was next adopted, is now uncertain. Certainly, however, at a later period, some 2000 years before Christ, cremation was the universal method of disposal of the dead except in Egypt, where bodies were embalmed; Judea, where they were buried in sepulchers, and China, where they were buried in the earth. Both Greeks and Romans were accustomed to inhume, but the practice was gradually abandoned in favor of burning on the pyre.

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* Read before the Columbus Academy of Medicine, Nov. 2, 1903.

Among the Greeks, suicides, unteethed children and persons struck by lightning were denied the right of cremation, and among the Romans, from the close of the Republic until the fifth century, burning on the pyre was a universal and honorable custom.

That the method of burning has, since the early centuries of the Christian era, given place among civilized people to that of inhumation, is probably due in a large measure to the influence of the church.

Reverence for the bones of saints and martyrs, belief in the resurrection of the actual body, together with a desire to adopt a method different from that practiced by pagan peoples, are some of the considerations that have given us the custom of earth burial, now so well established; and we are apt to accept it as we do many other observances and habits, without due consideration of its nature and effects.

That we should bury our dear ones from our sight beneath the green turf, shaded by drooping branches of lofty trees and surrounded with the beauty of many flowers, doubtless seems most appropriate and reverent. And we contemplate with unquestioning minds that the grave is to be the last resting place for the vehicles of our own anatomy when they shall have served our bidding for the last time. Then shall our bodies rest in the peaceful quiet of the cemetery until—not until the judgment day, unless it come within a few decades—but until our children's children shall demand our hiding place as a site for factories or market houses, and our bones shall be carted away by hired laborers to another and more remote repository. And in this begins the first count of the indictment against earth burial. Already within the brief history of the city of Columbus the dead have several times been crowded out from what had been intended as their final abode, to make room for the living; and the bones of those who, through oversight and neglect, have not been so re-interred are still occasionally turned up by the workman's spade during the excavation of cellars.

The first burying ground used by the villagers of Franklinton was a plat of about three acres on the west side of the Scioto, near Rickley's mill. This ground has been allowed to go to ruin, the enclosure has been broken down in many places and no attention worth speaking of has been given to it. In 1812 there was deeded to the village of Columbus a tract, known afterwards as the North Graveyard, situated west of High street where the North Market House now stands. Owing to the rapid growth of the town it was found that another grave-yard was needed, and in 1841 the city council purchased eleven acres on the north side of Livingston road, where is now Livingston Park. On June 2, 1848, there was published over the signature of "A Citizen" a card in which appears the following:

"The time has arrived for purchasing from one to two hundred acres of land for burial purposes. The old burying ground is pretty much filled with the inhabitants of the dead. The city is rapidly increasing and in a few years will grow entirely around the present site."

Early in 1849 ground comprising about fifty acres and situated two and a half miles southwest of the city was bought and was dedicated under the name of Greenlawn. In 1856 further interments in the North Graveyard were prohibited by ordinance and the place fell into sad neglect. In 1864 the trustees of Greenlawn Association determined to lay off the North Graveyard into city lots and to lease them as a permanent source of revenue for the support of Greenlawn Cemetery. In 1869 only one-half of the bodies had been removed. Owing to the marshy nature of the ground at the Livingston avenue site it was never used to any great extent as a cemetery and finally became a sort of a Potter's field, where only the friendless were buried. In 1877 further interment was prohibited there and the bodies were removed to Greenlawn.

Previous to 1845 the Roman Catholics of the city had no separate burial place, and it was customary for the priest who accompanied the funeral party to bless the particular grave. In this year, however, three acres on the corner of Mt. Vernon and Washington avenues were purchased. This site was then just at the edge of the city. The place has now been abandoned for some years.

The time when our city shall stretch forth its arms and shall encompass Greenlawn may not come during our lives, but it will come none the less surely, and the same conditions which are today confronting larger cities will have to be met here by future generations.

Let me call your attention to some of these conditions as they exist in Greater New York and which are so succinctly described by Mr. Cobb in his "Earth Burial and Cremation." In 1890 the combined population of New York and Brooklyn was about two and one-half millions, and the number of deaths annually 60,000. Over 40,000 burials take place each year in the following six cemeteries: Greenwood, Calvary, Cypress Hills, Evergreen, Lutheran and Woodlawn. The first of these, Greenwood, was opened in 1840; the last, Woodlawn, in 1865. Within these six cemeteries are now buried more than one and one-half million bodies. Speaking of the conditions obtaining in 1890, Mr. Cobb says:

"We see that the united population of New York and Brooklyn is over seven times as great as it was in 1840, and the effect in twenty years on these six cemeteries will be to increase by a million of bodies the one and one-half million already received. Brooklyn is over twenty-three times as large today as it was fifty years ago when the first interment was made in Greenwood, and as a natural consequence, this cemetery, once suburban, has become intramural. It need surprise no one to learn that its exhalations have been complained of in South Brooklyn, and considering the thousands annually interred within its grounds and the increasing density of population, we can readily believe that the evil instead of diminishing will increase."

The case of Newtown, Long Island, affords a striking illustration of what must be the condition near many large cities in future years. Newtown has a population of about 17,000. Of the 14,960 acres which comprise its area, 1774 acres, or about one-eighth of its extent, are used for cemeteries. For every living inhabitant there are eighty dead bodies within its township limits. Each year are brought to this place 35,000 dead bodies from New York and Brooklyn. Within a period of fifty years 1,385,000 bodies have been buried within this little township, most of which persons when alive had no interest in Newtown, and when dead served as a detriment to the living, not only in the matter of health, but also because this large acreage of cemeteries is by law exempt from taxation and the burden upon the land owners of the rest of the township is correspondingly increased.

Let me here quote from the report of a committee of the Board of Health of Newtown in 1886. Speaking of the manner of burial in the poor or free ground, the report says: "A trench is dug, beginning at the sidewalk, about ten feet wide and fifteen feet deep. In this the bodies are deposited one above the other, until near the surface of the ground, when a little earth is thrown over it; after this the same process is continued one tier after another, until the plot is taken up. Consequently, the open end of this trench is at no time covered, or only slightly covered if at all, until such trench if filled, when it is claimed that three or three and one-half feet of earth is thrown over the whole trench—the correctness of which we were unable to ascertain, on account of the frozen ground. In our belief, there are deposited in a trench at this cemetery at least 1500 bodies in a space of 10 feet by 200, calculating that there are deposited 15 bodies in each tier." The report denounces this and other procedures as "exceedingly detrimental to public health for the following reasons:

"The trench is kept open on one side for months, allowing gases to escape from hundreds of bodies in a state of decomposition, the influence of which will extend for miles through the atmosphere, and the trench is filled with body after body regardless of the cause of death, regardless of the danger to the living in the surrounding vicinity, mindless of the still greater danger to us, the citizens of our town, of polluting the water in the immediate neighborhood by the fluids of this decomposing mass entering the soil."

This claim that the dead can harm the living seems to be well established. Dr. T. Spencer Wells, late President of the Royal College of Surgeons of England, said: "Decomposing human remains so pollute the earth, air and water as to diminish the general health and the average duration of the life of our people," and he adds, "Existing cemeteries are not well fitted as safe, secure and permanent places of repose for the remains of our dead."

The statement of Sir Henry Thompson is even more forcible: "No dead body can be put in the ground without poisoning the earth, the air and the water about and above it."

Statistics on this subject are voluminous and they are appalling. Cases are on record where typhoid fever has been traced to the seepage of sewage through soil more than a mile in extent.

Not only by ordinary drainage, but by other means can infection be carried to great distances.

Pasteur demonstrated that the spores of cattle anthrax or splenic fever were brought to the surface of the ground by earth worms from pits in which had been buried animals which had died of the disease. He found these spores in the casts brought to the surface by earth worms and in the contents of their digestive organs. After being exposed these spores found their way into the grass and reinfected cattle which pastured on it.

During the epidemic of cholera and yellow fever in New York City, the neighborhood of Trinity church yard has usually suffered most severely. In 1822 this church yard was admitted to be an active cause of the epidemic of yellow fever. At that date it contained more bodies than the number of living inhabitants of the city. So crowded was it that at times burials were made but a foot and a half below the surface. In 1781 the odors arising from it were so offensive that Hessian soldiers covered its surface with earth and lime to the depth of three feet. In later years typhoid fever prevailed in its vicinity when other parts of the city were practically exempt.

Instances of special epidemics traceable directly to cemeteries or to the disinterment of a single corpse abound in medical literature. And we must remember that scientific investigation of the cause of disease is rarely made unless it assumes an epidemic or virulent type. How many milder forms of disease affecting only single individuals are traceable to graveyard infection can never be estimated. We are all familiar with the almost universal complaint of sore throat, diarrhea and other evidences of infection which usually attack medical students while working in the dissecting room. That these same poisons, although as it were diluted and strained, can be rendered inoccuous to those who breathe the air or drink the water which they contaminate, has never yet been proven. And we are apt to forget that in nature's laboratory, just as in man's, certain definite by-products are always to be considered and their value determined.

These are some of the considerations which during the last quarter of this nineteenth century have led to the adoption of cremation as a method of disposal of the dead. Its history in these later times dates from the Vienna Exposition in 1873, when Professor Brunnetti, of Padua, exhibited models of his furnace and the results of it in the form of ashes. In the previous year two Italian experimenters had published monographs on the subject, but public interest was not aroused until the exhibition referred to. Brunnetti's first cremation had taken place four years previously. In the Contemporary Review for January, 1874, appeared an article by Sir Henry Thompson advocating cremation as demonstrated by the three or four previous Italian experiments, and as a consequence of the interest excited by this paper there was organized in this same year "The Cremation Society of England." The declaration of the purpose of this society was expressed as follows:

"We disapprove the present custom of burying the dead and desire to substitute some mode which shall rapidly resolve the body into its component elements by a process which cannot offend the living and shall render the remains absolutely inoccuous. Until some better method is adopted we desire to adopt that usually known as cremation." During the succeeding year, 1875, violent opposition was shown to the plan by the English government and it was not until 1884 that cremation was decided by the Assize Court to be a legal procedure provided it should be effected without nuisance to others. Before this decision the society had been unable to place at the disposal of the public the crematory which it had built at Woking five years before. During the period between 1885, when the Woking crematory was first used, and 1891, there were 177 cremations. Nearly all the European countries at about this time became sufficiently interested to build furnaces and the membership of their societies has been satisfactorily increasing.

In the United States the first cremation of a white man was done at Charleston, S. C., in 1792, when, in accordance with his urgent request, the body of Colonel Henry Laurens was cremated in his own garden.

Public notice was first attracted to an unusual extent by the incineration of Baron de Palm, in the crematory of Dr. Julius LeMoyne, at Washington, Pa., in 1876; and later in 1885, when Professor Samuel D. Gross, that master surgeon of his time, than whom none stood higher in the reverence and affection of the medical profession of this country and of Europe, was incinerated in the same furnace, a new impetus was given to the practice of cremation. Dr. Gross was a teacher both in death and in life, and I must quote here his words which enjoined his friends as to the disposition of his body:

"If more was known," he wrote, "about the human frame while undergoing decomposition, people would turn with horror from the custom of burying their dead. If people knew what physicians know, what they have learned in the dissecting room, they would look upon burning the human body as a beautiful art in comparison with burying it. There is something eminently repulsive to me about the idea of lying a few feet under the ground for a century, going through the process of decomposition. When I die I want my body to be burnt. Common sense and reason proclaim in favor of cremation."

The second crematory in the United States was built in Lancaster, Pa., in 1884. Since that time others have been erected in Buffalo, Long Island, Pittsburg, Philadelphia, Los Angeles, Cincinnati, Detroit, St. Louis, Germantown, Quarantine Station, N. Y., Baltimore, Troy, Atlanta, Davenport, Chicago, San Francisco, Cleveland and possibly other cities. I have visited the one located at Buffalo. The building is of composite style of architecture and is built of Medina sand stone. Its walls are covered with ivy, and viewed from the beautiful avenue on which it fronts, it presents the appearance of a small church. Indeed the chapel with its stained glass windows is all that attracts attention, and from no point of view is anything disclosed of the purpose for which it is intended. Those who accompany the body enter the chapel from the front, while the body is taken to the mortuary chamber at the rear. Having been removed from the coffin, if it is so desired by the friends, it is placed on a car which conveys it to the chancel immediately adjoining the mortuary chamber, where it remains during the religious services. The car is then moved noiselessly to the incinerating room on the side of the chancel opposite the mortuary chamber, where the process of burning is carried out. The system used at Buffalo is that known as the Venini system, and the apparatus was imported from Italy. The furnace proper is located in the basement below the incinerating room. Here is a simple iron fire pot about four feet by two feet, which uses hard wood as fuel. Air is admitted only in such manner as to allow combustion at the bottom, and the gaseous products of combustion and distillation are carried up to the end of the incinerating chamber on the floor above. These gases are here met with air heated from the outside and the two are kept burning by a fire just under their point of union. The flame and heat are then thrown across the incinerating chamber, which reaches a temperature of about 2700 degrees Fahrenheit. The current passes back under the retort and before reaching the chimney is passed several times through flames so that all combustible gases are consumed. No smoke can be seen issuing from the chimney while an incineration is in progress. The process requires about one-quarter of a cord of wood and occupies from one to two hours. After the incineration is complete, abut twelve hours are required for cooling the retort. The ashes are delivered to the friends at the expiration of that time and are usually buried in the cemetery adjacent to the crematory.

Various systems are in use by the different societies of this country. The method used by the New England Society in Boston is that of heating the retorts and incinerating the bodies by sprays of atomized petroleum. Other systems requiring more fuel and longer time are those in which the flames do not enter the retort, which is entirely closed except for a few perforations through which the gasses escape and are consumed by the fire without. The flames circulate around all sides of the retort, which is built of fire brick and clay capable of resisting extreme heat. By this method it is claimed that nothing but heated air can touch the body.

In an address before the New England Cremation Society Mrs. Alice M. Lincoln said: "To reassure those of you who may be unfamiliar with the process, it is a pleasure to me to state that after all the preparations were made and we stood in silence watching the rosy glow which played over the white surface of the retort, a feeling came to us of awe certainly, but also of peace and rest. There was something so spiritual, so elevating in the absolute purity of the intense heat, that it seemed to all of us who stood there far less appalling or depressing than the blackness of an open grave; and as we slowly turned away from the scene and left the 'cleansing fires' to do their work, while there was certainly sadness in our hearts, the feeling of dread had vanished and we were content to know that the wishes of the one whom we had loved so dearly had been fulfilled in a way that seemed fitting and appropriate."

There are four principal aspects in which men discuss the comparative merits of inhumation and incineration: the religious, the medico-legal, the sentimental or æsthetic, and the sanitary. The argument against earth burial on the grounds of apparently authenticated cases where bodies exhumed within a short time after burial have given evidences of having been buried alive, I shall not consider. My personal belief is that the possibility of such a terrible fate is too remote to be used as a factor in the discussion of the subject. However, these words appear in Ziemssen's Cyclopedia of the Practice of Medicine, one of the highest of German authorities: "The distortion of features and change of position in bodies caused by the distending forces of the gases of putrefaction, will not account for instances of bodies found inside the doors of vaults, with coffins broken open and every indication of desperate struggles for escape." In the large hospitals of Munich, during the period elapsing between death and burial, attachments are made to the feet and hands of the dead in such a manner that upon the slightest tremor or movement bells will be rung summoning the attendants. Up to the present no instance has occurred in which those bells have been rung.

Touching the religious aspect of the question, Mr. Allen Gilman Bigelow, writing in the North American Review, well says: "We gradually come to regard as sacred the usages of centuries, and when these customs are interwoven with the ritual of a church the sacredness is enhanced a hundred fold. Yet a time hallowed custom may have nothing to do with Christianity as such."

To the objection that burning was a heathen custom, it may be answered, so was burial. Skeletons exhumed from ancient burial grounds in the Island of Capri have been found with coins of Tiberius Caesar in their mouths, placed there according to pagan custom to pay the dead man's ferriage across the Styx. We read in the Old Testament of the burial of Abraham, Isaac and Jacob; but centuries before their day, the embalmed remains of the great men of Egypt were laid to rest in tombs that have been opened by men now living. In modern warfare, barricades have been made of mummified bodies disinterred after centuries of repose.

"To such base uses may we come at last."

> "Imperial Caesar dead and turned to clay,
> May stop a crack to keep the wind away."

Who knows but that the clay from the old mound between the Court House and St. Paul's Luthern church, from which were made the bricks for the first state house and penitentiary, held in admixture the dust of Algonquin braves who had been buried there many years before.

If it is insisted that we conform to customs that have the sanction of scriptural record, we have until recent years been strangely neglectful of a prominent feature of ancient mortuary usage, i. e., embalming. Joseph had the body of his father embalmed by the physicians of Egypt before taking it back to Canaan. Joseph's own body was also embalmed and put in a coffin in Egypt. Evidently the chosen people of God had no scruples about adopting or conforming to a heathen custom for the reason that the disposal of the dead was purely a secular question and not a religious one. To this may be added the fact that the body of the Savior was embalmed "as the manner of the Jews" was in that day; and yet the majority of Christians in the world do not now practice embalming.

The objection has been advanced that cremation interferes with the divine order and purpose touching the resurrection of the dead. It goes without the telling that belief in the actual, literal resurrection of our bodies, including all their constituent particles, is now held only by the few who still maintain the theory that this earth which we inhabit was constructed and launched forth by Almighty God within the space of six days, bounded by a morning and an evening as we now reckon the days of the week. But, for argument's sake, conceding the dogma of a literal, actual resurrection of our present bodies, would the resurrection of the body of a man who had perished in the flames be a more difficult task in the divine scheme than the resurrection of the body of one who was drowned at sea, while journeying on a mission of mercy to preach the Gospel, or of one whose bones had crumbled into indistinguishable dust in the soil of a church yard?

Can human malice or human misfortune, calamity or evil in any conceivable form thwart the divine purpose and order? The question answers itself.

Viewed in its medico-legal aspect, it is admitted that a most serious objection can be opposed to cremation in that it may destroy evidences of crime. Bodies are occasionally exhumed and parts of them are submitted to chemical examination in supposed cases of poisoning, either criminal or accidental. It is certainly possible that in some instances the ends of justice might be defeated if a particular body had been disposed of by cremation rather than by earth burial. All societies now organized for cremation purposes have recognized the weight of this objection and have used every precaution to overcome it. Not only is the usual burial permit of the local board of health required by many societies before incineration takes place, but also the written statement from the physician attending the deceased during his last illness of the time, place, manner and cause of death, as well as an additional statement covering the same ground from the legal representatives of the deceased. These three papers are carefully scrutinized and no order for cremation is issued unless they are found to be absolutely correct and confirmatory of each other. When we remember how frequently in the trial of cases of alleged poisoning, the testimony of expert chemists has been proven worthless by the fact that the body in question had been injected with large quantities of poisonous material for the purpose oi emblaming and that frequently the exact composition of this embalming fluid is a trade secret; when we also remember that even if its composition be known there is at once a doubt as to a possible chemical reaction between it and the particular poison supposed to have caused death; when we think that nearly all poisons, such as prussic acid, aconite, atropine, morphine, etc., either decompose in a comparatively short space of time, or by forming new combinations with the septic products of decomposition set up in the body after burial, tend to render their detection almost impossible; and that practically only the mineral poisons such as mercury, antimony and arsenic are stable for any great length of time, when, I say, we remember all these things and the further fact, stated on high scientific authority, that only about one out of every million bodies is ever disinterred for the purpose of examination for poisoning, shall we not put on the other side of the balance as against this small possibility of error, the greater and more monstrous evil which we are each day committing against the living by implanting in the earth the germs of every known disease in their original habitat and in their most favorable culture medium?

Viewed in its sentimental or æsthetic aspect, cremation at each step of its progress invites the presence and inspection of the intelligent, the refined, the gentle, the tender, the loving, the thoughtful, the philanthropic; for these it chooses as its witnesses and judges, and to all such it makes its appeal.

Has inhumation the courage even to whisper its secrets to the ear of affection and refinement? It lives in concealment and works in darkness, for thus and thus only can it continue to live and to work. What artist could paint, and who would dare unroll for exhibition a panorama of the chemical processes of the grave? No palette has ever held the colors to paint so foul a picture. Nor could an artist's hand perform the task. In so dread a presence every human sense would be paralyzed. Just a question to the advocates of inhumation: Lacking, as you do, the special knowledge of the physician and the undertaker on this subject, with such information as you possess and the deductions therefrom of your intelligent minds, would you be willing, if it were practicable, to open the grave of a buried friend after the lapse of two or three years and tell his surviving dear ones what you saw? But you can without scruple or hesitation and with unfaltering tongue describe the process of cremation at its every stage, joining company with your friends the moment after you have witnessed it.

In the sanitary aspects of the comparative methods of burning and burying lies the invincible argument in favor of cremation. We quarantine or sequester a patient suffering from a virulent and communicable disease for the brief period during which the disease is contagious; but association and contact with such a patient after recovery is customary and safe. But should the patient die, danger to the living has only begun. Ten thousand times has it been demonstrated beyond all possible doubt that from the decaying bodies of persons dying from cholera, smallpox, typhoid fever and other diseases, springs and wells have been polluted and the atmosphere poisoned, causing epidemics whose victims were almost numberless. To the argument (to make a personal application) that intramural interments are not now permitted in Columbus, and that Greenlawn and Calvary are at sufficient distance from the city to minimize our danger, it is sufficient to reply that the danger is only diluted, i. e., that the health of but a smaller number of people is endangered. If the dangers of earth burial be admitted it is not sufficient to say that at present only a few are exposed to them. We have no right to be indifferent to the welfare of even a few of our neighbors.

Whatever may be the method usually practiced there can be no doubt that while the scourge of any great pestilence rests upon a community, the living may wage far more successful battle against it if they burn their dead than if they bury them. That disease germs and micro-organisms of many kinds have remarkably resistent vitality is a matter of common knowledge. Extremes of heat and cold have very little effect upon many of these low orders of life. Time does not impair their ability to multiply in astonishing numbers even when carried by air or soil drainage to great distances from their original foci.

Whether in time of war cremation of the dead upon the battlefield can be made practicable is as yet uncertain. If at such times portable furnaces, as have been lately devised by military men in Italy and Poland, could be put into operation in sufficient numbers under the charge of a special corps of non-combatants, similar in organization to the Red Cross Society, the survivors of the conflict at arms would be far less likely to succumb to disease than if the dead were buried in shallow trenches or pits, as is usually now done. And in the event of an epidemic, such as attacked our army at Santiago, who can deny that the same prompt measures as were undertaken in New York on the occasion of the death of Colonel Waring, would do much to prevent infection of the living.

A not unimportant feature of our present mode of interment is the immediate danger from exposure to inclement weather and damp ground which is incurred by relatives and friends who accompany the funeral procession to the cemetery. The weary hours of watchful anxiety, the intense mental strain and almost physical collapse which follow in the intervening days before the funeral are poor preparation for the distinct shock of exposure to possible cold and rain and snow during the time of services at the grave. Instances of this kind followed by irreparable physical damage are matters of ordinary medical knowledge.

Common observation recognizes among the conspicuous traits of human nature a readiness to confide in the wisdom and judgment of others. To how many thousand good men and women—intelligent, too—is "our pastor" an oracle? And in such instances how much of belief is second-hand? Yet such belief affects and controls daily life and conduct. To how many thousands of business men is "my lawyer" the very embodiment of practical wisdom; and how implicitly is his caution heeded and his advice followed in business transactions of the smallest or greatest magnitude? But, possibly, closer to all the secrets of personal life and history than either the clergyman or the lawyer stands the family physician. "All that a man hath will he give for his life" and for the safety and prolongation of his life. When its citadel is attacked by disease or assaulted by accident he turns with supremest trust to his physician. Throughout the civilized world the medical profession is practically a unit in its belief in the advantages of cremation and in the desire for its general adoption, and this because and only because it is the guardian of the health and the safety of the living. If the voice of the physician were as potent to determine the disposal of the bodies of the dead as of the living, cremation would be an established custom within a twelve month. State medical societies throughout this country, as well as the national medical societies of all schools, have with steady unanimity pronounced in favor of it. Listen to the report of the committee to consider cremation at the meeting of the American Medical Association in St. Louis, May, 1886. These paragraphs are a part of that report as presented by Dr. James M. Keller, chairman of the committee:

"We believe the horrid practice of earth burial does more to propagate the germs of disease and death and to spread desolation and pestilence over the human race than do all man's ingenuity and ignorance in every other custom or habit. The time has come for us to squarely face the problem how to dispose of our dead with safety to the living. Your committee has an abiding faith that you will earnestly and at once say that the earth was made for the living, not for the dead; and that pure air, pure water and pure soil are absolutely necessary for perfect health. Only skeptics deny that the dead do poison these three essentials of human life."

These, then, are some of the phases in which this subject has been thought of. The results are the same in burial and in burning—disintegration, dissolution, dissipation. Processes may differ, but as has been tersely said: "The goal toward which and unto which in unfaltering progress moves the lifeless human body through earth or fire or water, is one and the same; the only difference being the degree of speed with which it moves along the path of decay.

It is natural, and therefore inevitable, that the suggestion of cremation comes even to intelligent and thoughtful minds as a challenge. Unlike the changes which occur in the every-day economics and methods of our lives in which by the gentle stages of transition, by almost imperceptible gradations, the old routine is supplanted by the new, an abrupt and radical change is now proposed. Cremation steps out on the highway of human progress and cries, "Halt; who goes there?" and in a tone of pathetic sadness answer is made: "We go to bury our dead out of our sight." And here the unequal argument begins. On the one side, facts the most conclusive, reasons the most cogent, considerations the most sacred, motives the most lofty, demands the most imperative; on the other side, tradition, conventionality, conformity, timidity; tradition that pleads its antiquity, conventionality that resents intrusion, conformity that deprecates discussion, timidity that dreads the untried; with grief and pity and sadness in their train. And all these reinforced by superstition masquerading as religion, or superstition and religion in unwonted fellowship.

Reverting, in conclusion, to the religious aspect of the question, it is certainly remarkable that science and revelation are at one in pointing to the ultimate end—the "manifest destiny"—of this earth which we inhabit. That the watcher from his observatory in another planet will, in some far off hour, behold through his glass this mighty globe, not as now a thing of beauty populous with myriad forms of life, but a dead and tenantless cinder swinging in its orbit, is the prophesy of scientific thought of today. And this great expectation, as "one far off divine event, toward which the whole creation moves," was made by St. Peter his reason for the tenderest admonition to Godly living and conduct. Listen to the fisherman:

"* * * the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up. Seeing then that all these things shall be dissolved, what manner of persons ought ye to be in all holy conversation and godliness?"

If there is any significance in this conjunction, surely the divine method of disposing of a world that has served its purpose is a safe one for us to imitate in disposing of our bodies when they shall have come to be no longer habitable.

LICKING COUNTY MEDICAL SOCIETY.—The regular monthly meeting of the Licking County Medical Society was held November 5. Dr. J. P. H. Stedem reported an interesting clinical case of labor. Dr. C. E. Evans read a paper on "Lobar Pneumonia," and Drs. Larimore, Knauss, Foster, Stedem, Johnston, King, Latimer, Garrison and Barnes discussed these papers fully. A motion to establish a fee bill was discussed and prevailed. Two committees were appointed, one to canvas the country practitioners, and one those of the city. They will report at a special meeting to be called by President A. T. Speer. Drs. Latimer, Nye and Johnston were appointed to read papers in December.

ENDOWMENT FOR RESEARCH IN ANATOMY.—Mr. H. M. Hanna has given $100,000 to Western Reserve University, Cleveland, for the endowment of a Chair of Research in Anatomy.

MUNICIPAL SANATORIUM.—Cleveland is maintaining a tuberculosis sanatorium with accommodations for about 100 patients.

PRINCIPLES OF MEDICAL ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.*

The American Medical Association promulgates as a suggestive and advisory document the following:

CHAPTER I—THE DUTIES OF PHYSICIANS TO THEIR PATIENTS.

SECTION 1. Physicians should not only be ever ready to obey the calls of the sick and the injured, but should be mindful of the high character of their mission and of the responsibilities they must incur in the discharge of momentous duties. In their ministrations they should never forget that the comfort, the health, and the lives of those entrusted to their care depend on skill, attention, and fidelity. In deportment they should unite tenderness, cheerfulness and firmness, and thus inspire all sufferers with gratitude, respect and confidence. These observations are the more sacred because, generally, the only tribunal to adjudge penalties for unkindness, carelessness or neglect is their own conscience.

"SEC. 2. Every patient committed to the charge of a physician should be treated with attention and humanity, and reasonable indulgence should be granted to the caprices of the sick. Secrecy and delicacy should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted, in their professional visits, should be guarded with the most scrupulous fidelity and honor.

"SEC. 3. The obligation of secrecy extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance should ever be divulged by physicians. The force of the obligation of secrecy is so great that physicians have been protected in its observance by courts of justice.

"SEC. 4. Frequent visits to the sick are often requisite, since they enable the physician to arrive at a more perfect knowledge of the disease, and to meet promptly every change which may occur. Unnecessary visits are to be avoided, as they give undue anxiety to the patient; but to secure the patient against irritating suspense and disappointment the regular and periodical visits of the physician should be made as nearly as possible at the hour when they may be reasonably expected by the patient.

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* Adopted at the New Orleans meeting in June 1903.

"SEC. 5. Ordinarily, the physician should not be forward to make gloomy prognostications, but should not fail, on proper occasions, to give timely notice of dangerus manifestations to the friends of the patient; and even to the patient, if absolutely necessary. This notice, however, is at times so peculiarly alarming when given by the physician, that its deliverance may often be preferably assigned to another person of good judgment.

"SEC. 6. The physician should be a minister of hope and comfort to the sick, since life may be lengthened or shortened not only by the acts but by the words or manner of the physician, whose solemn duty is to avoid all utterances and actions having a tendency to discourage and depress the patient.

"SEC. 7. The medical attendant ought not to abandon a patient because deemed incurable, for, continued attention may be highly useful to the sufferer, and comforting to the relatives, even in the last period of the fatal malady, by alleviating pain and by soothing mental anguish.

"SEC. 8. The opportunity which a physician has of promoting and strengthening the good resolutions of patients suffering under the consequences of evil conduct ought never to be neglected. Good counsels, or even remonstrances, will give satisfaction, not offense, if they be tactfully proffered and evince a genuine love of virtue accompanied by a sincere interest in the welfare of the person to whom they are addressed."

CHAPTER II—THE DUTIES OF PHYSICIANS TO EACH OTHER AND TO THE PROFESSION AT LARGE.

Article 1—Duties for the Support of Professional Character.

"SECTION 1. Every one on entering the profession and thereby becoming entitled to full professional fellowship, incurs an obligation to uphold its dignity and honor, to exalt its standing and to extend the bounds of usefulness. It is inconsistent with the principles of medical science and it is incompatible with honorable standing in the profession for physicians to designate their practice as based upon an exclusive dogma or a sectarian system.

"SEC. 2. The physician should observe strictly such laws as are instituted for the government of the members of the profession; should honor the fraternity as a body; and should endeavor to promote the science and art of medicine, and should entertain a due respect for those seniors who, by their labors, have contributed to its advancement.

"SEC. 3. It is the duty of every physician to identify himself with the organized community in which he resides. Where local or county medical societies do not exist, physicians, recognized as such by law and known to each other to possess good moral and professional character, should assemble in convention and effect an organization, and thereafter any physician, recognized as such by law, residing within the county and possessing a good personal and professional character, whatever may be his individual views on any question connected with the science of medicine, ought, on application, to be considered eligible to membership.

"All county medical societies thus organized ought to place themselves in affiliation with their respective state association, and the state associations, in turn, with the American Medical Association.

"SEC. 4. Physicians should be active in their support of their respective county societies, which constitute the chief element of strength in the organization of the profession. The county societies should be utilized for the cultivation of felllowship, for the exchange of professional experiences, for advancement of medical knowledge, by means of papers, essays and addresses, and by bringing within their midst, when practicable, laboratory demonstrations of the latest developments of scientific methods. They should enact and enforce resolutions and ordinances touching all ethical questions of local importance, and each county society should discipline its own members, always, of course, subject to appeal to its respective state association. County societies should, furthermore, secure concert of action and should co-operate with their respective state associations on all matters of pending legislation touching the interests of the profession and of the public and common interests of both.

"SEC. 5. There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required than the medical; and to attain such eminence is a duty every physician owes alike to the profession and to patients. It is due to the patients, as without it their respect and confidence cannot be commanded; and to the profession because no scientific attainments can compensate for the want of correct moral principles.

"SEC. 6. It is incumbent on physicians to be temperate in all things, for the practice of medicine requires the unremitting exercise of a clear and vigorous understanding; and in emergencies—for which no physician should be unprepared—a steady hand, an acute eye, and an unclouded mind are assential to the welfare, and even to the life, of a human being.

"SEC. 7. It is incompatible with honorable standing in the profession to resort to public advertisements or private cards inviting the attention of persons affected with particular diseases; to promise radical cures; to publish cases or operations in the daily prints, or to suffer such publications to be made; to invite laymen (other than relatives who may desire to be at hand) to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success; or to employ any of the other methods of charlatans.

"SEC. 8. It is equally derogatory to professional character for physicians to hold patents for any surgical instruments or medicines; or to dispense, or promote the use of, secret medicines, for if such nostrums are of real efficacy, any concealment regarding them is inconsistent with beneficence and professional liberality, and if mystery alone shall alone give them public notoriety, such craft implies either disgraceful ignorance or fraudulant avarice."

ARTICLE II—PROFESSIONAL SERVICES OF PHYSICIANS TO EACH OTHER.

"SECTION 1. Physicians should not, as a general rule, undertake the treatment of themselves, nor of members of their family for obvious reasons. In such circumstances they are peculiarly dependent on each other; therefore, kind offices and professional aid should always be cheerfully and gratuitously afforded. These visits ought not, however, to be obtrusively made, as they may give rise to embarrassment or interfere with that free choice on which such confidence depends.

"SEC. 2. All practicing physicians and their immediate family dependents are entitled to the gratuitous services of any one or more of the physicians residing near them.

"SEC. 3. When a physician is summoned from a distance, to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives.

"SEC. 4. When more than one physician is attending another, one of the number should take charge of the case, otherwise the concert of thought and action so essential to wise treatment cannot be assured.

"SEC. 5. The affairs of life, the pursuit of health and the various accidents and contingencies to which a physician is peculiarly exposed sometimes require the tepmorary withdrawal of the physician from daily professional labor and the appointment of a colleague to act for a specified time. The colleague's compliance is an art of courtesy which should always be performed with the utmost consideration for the interest and character of the family physician."

ARTICLE III—THE DUTIES OF PHYSICIANS IN REGARD TO CONSULTATIONS.

"SECTION 1. The broadest dictates of humanity should be obeyed by physicians whenever and wherever their services are needed to meet the emergencies of disease or accident.

"SEC. 2. Consultations should be promoted in difficult cases, as they contribute to confidence and more enlarged views of practice.

"SEC. 3. The utmost punctuality should be observed in the visits of physicians when they are to hold consultations, and this is generally practicable, for society has been so considerate as to allow the plea of a professional engagement to take precedence over all others.

"SEC. 4. As professional engagements may sometimes cause delay in attendance, the physician who first arrives should wait for a reasonable time, after which the consultation should be considered as postponed to a new appointment.

"SEC. 5. In consultation no insincerity, rivalry, or envy should be indulged; candor, probity, and all due respect should be observed toward the physician in charge of the case.

"No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered which are not the result of previous deliberation and concurrence.

"SEC. 7. No decision should restrain the attending physician from making such subsequent variations in the mode of treatment as any unexpected change in the character of the case may demand. But as the next consultation reasons for the variations should be stated. The same privilege, with its obligation, belongs to the consultant when sent for in an emergency during the absence of the family physician.

"SEC. 8. The attending physician, at any time, may prescribe for the patient; not so the consultant, when alone, except in a case of emergency or when called from a considerable distance. In the first instance the consultant should do no more than make an examination of the patient and leave a written opinion, under seal, to be delivered to the attending physician.

"SEC. 9. All discussions in consultation should be held as confidential. Neither by words nor by manner should any of the participants in a consultation assert or intimate that any part of the treatment pursued did not receive his assent.

"SEC. 10. It may happen that two physicians cannot agree in their views of the nature of a case and of the treatment to be pursued. In the event of such disagreement, a third physician should, if practicable, be called in. None but the rarest and most exceptional circumstances would justify the consultant in taking charge of the case. He should not do so merely upon the solicitation of the patient or friends.

"SEC. 11. A physician who is called in consultation should observe the most honorable and scrupulous regard for the character and standing of the attending physician, whose conduct of the case should be justified, as far as can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in the attending physician.

ARTICLE IV—DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

"SECTION 1. Medicine being a liberal profession, those admitted to its ranks should found their expectations of practice especially on the character and the extent of their medical education.

"SEC. 2. The physician in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder, nor should the course of conduct of the physician directly or indirectly tend to diminish the rest reposed in the attending physician.

"SEC. 3. The same circumspection should be observed when, from motives of business or friendship a physician is prompted to visit a person who is under the direction of another physician. Indeed, such visits should be avoided, except under peculiar circumstances, and when they are made, no inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

"SEC. 4. A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another physician in the same illness, except in case of a sudden emergency, or in consultation with the physician previously in attendance, or when that physician has relinquished the case or has been dismissed in due form.

"The physician acting in conformity with the preceding section should not make damaging insinuations regarding the practice previously adopted, and, indeed, should justify it if consistent with truth and probity; for it often happens that patients become dissatisfied when they are not immediately relieved, and as many diseases are naturally protracted, the seeming want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge or skill.

"SEC. 6. When a physician is called to an urgent case, because the family attendant is not at hand, unless assistance in consultation is desired, the former should resign the care of the patient immediately on the arrival of the family physician.

"SEC. 7. It often happens, in cases of sudden illness, and of accidents and injuries, owing to the alarm and anxety of friends, that several physicians are simultaneously summoned. Under these circumstances, courtesy should assign the patient to the first who arrives and who, if necessary, may invoke the aid of some of those present. In such a case, however, the acting physician should request the family physician to be called, and should withdraw unless requested to continue in attendance.

"SEC. 8. Whenever a physician is called to the patient of another physician during the enforced absence of that physician the case should be relinquished on the return of the latter.

"SEC. 9. A physician, while visiting a sick person in the country, may be asked to see another physician's patient because of a sudden aggravation of the disease. On such an occasion the immediate needs of the patient should be attended to and the case relinquished on the arrival of the attending physician.

"SEC. 10. When a physician who has been engaged to attend an obstetric case is absent another is sent for, delivery being accomplished during the vicarious attendance, the acting physician is entitled to the professional fee, but must resign the patient on the arrival of the physician first engaged."

ARTICLE V—DIFFERENCES BETWEEN PHYSICIANS.

"SECTION 1. Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such unfortunate cases occur and cannot be immediately adjusted, they should be referred to the arbitration of a sufficient number of impartial physicians.

"SEC. 2. A peculiar reserve must be maintained by physicians toward the public in regard to some professional questions, and as there exist many points in medical ethics and etiquette through which the feelings of physicians may be painfully assailed in their intercourse, and which cannot be understood or appreciated by general society, neither the subject matter of their differences nor the adjudication of the arbitrators should be made public."

ARTICLE VI—COMPENSATION.

"SECTION 1. By the members of no professions are eleemosynary services more liberally dispensed than by the medical, but justice requires that some limits should be placed to their performance.

"Poverty, mutual professional obligations and certain of the public duties named in sections 1 and 2 of chapter III should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public nor by the rich, nor by societies for mutual benefit, for life insurance, or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege.

"SEC. 2. It cannot be justly expected of physicians to furnish certificates of inability to serve on juries, or to perform militia duty; or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without due compensation. But to persons in indigent circumstances such services should always be cheerfully and freely accorded.

"SEC. 3. Some general rules should be adopted by the physicians in every town or district relative to the minimum pecuniary acknowledgment from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

"SEC. 4. It is the duty of physicians to recognize and by legitimate patronage to promote the profession of pharmacy, upon the skill and proficiency of which depends the reliability and elegance of remedies, but any pharmacist who, although educated in his own profession is not a qualified physician, and who assumes to prescribe for the sick, ought not to receive such countenance and support. Any druggist or pharmacist who dispenses deteriorated or sophisticated drugs, or who substitutes one remedy for another designated in a prescription, ought thereby to forfeit the recognition and influence of physicians.

CHAPTER III—THE DUTIES OF THE PROFESSION TO THE PUBLIC.

"SECTION 1. As good citizens it is the duty of physicians to be very vigilant for the welfare of the community, and to bear their part in sustaining its laws, institutions and burdens; especially should they be ready to co-operate with the proper authorities in the administration and the observance of sanitary laws and regulatons, and they should also be ever ready to give counsel to the public in relation to subjects especially appertaining to their profession, as on questions of sanitary police, public hygiene and legal medicine.

"SEC. 2. It is the province of physicians to enlighetn the public in regard to quarantine regulations; to the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger and to continue their labors for the alleviation of the suffering people, even at the risk of their own lives.

"SEC. 3. Physicians, when called on by legally constituted authorities, should always be ready to enlighten inquests and courts of justice on subjects strictly medical, such as involve questions relating to sanity, legitimacy, murder by poison or other violent means, and various other subjects embraced in the science of medical jurisprudence. It is but just, however, for them to expect due compensation for their services.

"SEC. 4. It is the duty of physicians, who are frequent witnesses of the great wrongs committed by charlatans, and of the injury to health and even destruction of life caused by the use of their treatment, to enlighten the public on these subjects, and to make known the injuries sustained by the unwary from the devices and pretensions of artful imposters.

"SEC. 5. Physicians ought to use all the influence which they possess to discourage pharmacists from vending the secret or other medicines of charlatans, or from being in any way engaged in their manufacture."

The following is the report of the general committee on code in explanation of its action in recommending the principles instead of a revised code of ethics:

"To the President and Members of the House of Delegates:

"Your committee has given extended and careful thought to the proposed revision of the code of medical ethics referred to it for consideration. As you will note on caption of report, the word 'code' has been eliminated, and the expression 'The principles of medical ethics of the American Medical Association' adopted as adequately descriptive. In reference to this change it is proper to say that such action on its part is based on the idea that the American Medical Association may be conceived to occupy some such relation to the constituent state associations as the United States through its Constitution holds to the several states. The committee, for this reason, regards it as wiser to formulate the principles of medical ethics without definite reference to code or penalties, thus leaving the respective states, etc., to form such code and establish such penalties as they may regard to be fitting and proper for regulating the professional conduct of their members; provided, of course, that in so doing there be no infringement of the established ethical principles of the association. The committee regards as wise and well intended to facilitate the business of the parent organization and promote its harmony, this course, which leaves to the state association large discretional powers concerning membership and other admittedly state affairs.

"Your committee has retained to a large extent he phraseology of the existing code, while aiming at condensation of expression and a better understanding of some of its statements.

"The report of the committee has been reached unanimously without discussion or distrust on the part of its members, each aiming to formulate a result based on principle alone, and without regard to any past or present disagreements or misunderstandings whatever.

"Such being the case, the committee invites your candid and unprejudiced attention and action to the results of its labor, feeling that at least some good has been accomplished."

The report was unanimously adopted.

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Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting, Monday Evening, November 2, 1903.

Dr. J. D. Dunham read a paper on "Some Anomalous Cases of Gastric Disease." He reported several cases in which chemical examination of the stomach contents were anomalous, in that the pathological conditions were not in accordance with the findings. In one case free hydrochloric acid was found in normal amount where a pyloric cancer existed, which was demonstrated at the postmortem. In another case there was an absence of free hydrochloric acid and a change from other normal conditions. A tumor could be outlined in the pyloric region. An exploratory opening of the abdomen developed that the tumor was due to encrusted gall stones, which were removed, and the patient recovered. Other cases fully as interesting and suggestive were reported.

The paper was discussed by Dr. W. J. Means, who called attention to the possibility to free hydrochloric acid found in the stomach being due to its administraton. The motility in a cancerous stomach is almost nothing, especially where there is occlusion of the pylorus. Injesta are often found slightly changed after being in the stomach several days. Some authorities have reported finding hydrochloric acid that could not be accounted for other than by administration.

Dr. D. L. Moore read a paper (see page 493) on "Cremation" as a method of burying the dead. He gave an exhaustive history of the development of cremation and discussed the subject from a scientific, sentimental, medical and legal standpoint. Dr. Probst, in discussing the paper, was inclined to doubt the infectious condition of bodies and surrounding earth where they had been interred several years. While our knowledge of the viability of pathogenic bacteria in a dead body is not definitely settled, yet so far bacteriologists have not been able to demonstrate their presence beyond one or two years.

Dr. E. J. Wilson took the same view. He spoke of the process of decomposition being germacidal, thus destroying the pathogenic bacteria. Dr. Timberman spoke on the sentimental feature. He stated that after witnessing a funeral service at a well conducted crematory he was impressed with the surroundings and appropriate method of burying the dead.

Dr. Blake made a few remarks on cremation as a hygenic measure. All the speakers agreed with the author in his advocacy of cremation as the proper method of disposing of the dead.

MEETING OF BIG FOUR SURGEONS.

The Association of Big Four Railroad Surgeons held its tenth annual session at Indianapolis October 22, and elected officers as follows: President, C. W. Chidester, Delaware, Ohio; First Vicepresident, E. Mammon, Bloomington, Ill.; Second Vicepresident, J. T. Henderson, Covington, Ind.; Third Vicepresident, T. W. Costelo, Sidney, O.; Secretary and Treasurer, T. C. Kennedy, Shelbyville, Ind. Executive Committee: C. F. Smith, C. A. White, J. A. Kimmel, E. J. Raynard, G. W. Waters, E. L. M. Springer, J. A. Mauk.

Dr. E. L. Ensminger, retiring president of the Association, presided. The program consisted of papers on the following subjects: "Shock," Dr. F. R. Evans; "Lacerated and Contused Wounds," Dr. J. A. Kimmel, Findlay, O.; "Burns and Scalds," Dr. J. T. Henderson; "Septicemia," Dr. August Rhu; "Chemical Antiseptics in Recent Wounds," Dr. T. W. Costello; "Delayed Union in Fractures," Dr. A. P. Fitch."

St. Louis was selected as the next meeting place, the convention to be held the second Tuesday in October.

CARROLL COUNTY MEDICAL SOCIETY.

The Carroll County Medical Society held a meeting September 28, at Carrollton. W. R. Spratt, of Malvern, read a paper on "Acute Dilatation of the Heart." It was discussed by Drs. Hise and Williams. Drs. Ross, Everhart and Whiteleather were appointed a committee to report on revising the constitution and by-laws. Dr. J. R. Williams, President; Dr. J. J. Hathaway, Secretary-Treasurer.

Periscope of Medical Progress.

SURGERY.

FECAL VOMIT DURING OPERATIONS.

ABSTRACT BY H. H. SNIVELY, A. B., M. D., ASSOCIATE EDITOR.

Dr. E. Wyllys Andrews, of Chicago, in the *Annals of Surgery*, of recent date, in an article entitled "The Drowning of Patients in Fecal Vomit During Operations for Intestinal Obstruction and Septic Peritonitis," gives two cases which he has seen and several cases which have occurred in the practice of others. One of his own cases he describes as follows:

Case I. A young man, aged eighteen years, patient of Dr. McGaughey, was operated upon at Mercy Hospital for acute suppurative appendicitis. The general peritoneum was infected, and a large amount of pus was removed, after which the cavity was irrigated and a Mikulicz gauze drain inserted. This patient was returned to his room in fair condition. About fifty or sixty minutes after the operation I visited his room, where he had been attended constantly by a nurse. His consciousness had returned and nothing unusual had occurred until a moment before I chanced to reach his bed, he choked a little and ceased breathing. He was cyanotic and gasping as I entered, but did not vomit or retch. The pulse was full. Separating the teeth and drawing his tongue forward, I found his nose and mouth full of fluid fecal vomit. None had escaped, and there was no cough. I lowered the patient's head by hanging his shoulders over the side of the bed, when large volumes of brownish fluid ran in streams from his mouth and both nostrils. When this ceased running, his body was rolled, and then still more elevated and artificial respiration kept up. The pulse soon ran down and he died without ever breathing naturally again, or seeming to get any oxygenation from the forced breathing. He was practically dead when I first saw him, although the heart beat a moment longer. Such a death might have been thought due to the anesthetic had it occurred on the table. Of course, it is possible to assume that it was a cardiac case or a pulmonary embolism, and the flooding only an incident, but I believe it to be one of drowning."

The other cases cited agree in the sudden failure of respiration and the immense amount of brownish fecal fluid flooding the air passages.

The author calls attention to the enormous collections of fluid in the large and small intestines accumulating in intestinal obstructions, and suggests that probably ether and chloroform toxemia added to septic toxemia abolish some reflexes ordinarily present so that throat irritability is also lost, and no spasmodic expulsion occurs when the trachea and bronchi are flooded. The fluid is viscid and would not be drained from the lung by change of posture.

In the author's own words, the conclusions are:

1. "Flooding of the air passages by fecal vomiting is a real danger, and probably has caused many unexplained deaths.
2. 'Resuscitation is impossible or very difficult.
3. "The fluid may flow by gravity through the relaxed stomach sphincters directly out of the intestine where it has accumulated in enormous quantities.
4. "The accident occurs with great suddenness and with a stomach supposedly empty. The suffocation may be so complete that no outcry is made and may not be noticed by the attendant.
5. "It may occur as late as an hour after anesthesia, or at any time until consciousness is restored.
6. "We have no evidence that it can occur during consciousness even *in extremis*.
7. "After septic laparotomy, patients, when returned to bed should be watched without even momentary intervals to full consciousness.
8. "A suggestion made to me by Dr. McArthur, that as many as possible of such cases be operated on under cocaine anesthesia, seems to me sound in the light of the above report."

HENRY COUNTY MEDICAL SOCIETY.—On October 7, Dr. J. H. Jacobson, Toledo, Councilor for the Fourth District, organized at Napoleon a county society, with the following officers: President, Dr. E. B. Harrison, Napoleon; Vicepresidents, Drs. Harry P. Haag, Liberty, and Ora L. Norris, Deshler; Secretary and Treasurer, Dr. A. E. H. Mearker, Napoleon, and Censors, Drs. John Bloomfield, Napoleon; Samuel E. Miller, Florida, and James D. Archer, Holgate.

THE COLUMBUS MEDICAL JOURNAL.

A MONTHLY MAGAZINE OF MEDICINE AND SURGERY.

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NOVEMBER, 1903.

Editorial.

EXAMINATION FOR ENTRANCE TO OHIO MEDICAL COLLEGES.

The examination for entrance to Ohio Medical Colleges was held in Cleveland, Cincinnati, Columbus and Toledo September 25 and 26, the same questions being submitted to all candidates. That the examinations may be uniform throughout the state each examiner submits for use at the several places of examination the questions on certain branches, and grades all the papers on those subjects.

In pursuance of the direction of the State Board of Medical Registration and Examination, as announced in 1901, the standard of entrance for this year was materially raised above that of a year ago. As may be seen from the questions of the last examination, published in this issue, the Board of Examiners have provided an admirable test of the new standard of qualification. The examination is framed to insure of those who enter Ohio medical colleges a knowledge of (a) the Latin language represented by two years' study; (b) English literature, including its history and representative classics, composition and rhetoric; (c) United State history and civics; (d) algebra through quadratic equations and plane geometry, and (e) three sciences, botany or zoology, physiography or chemistry, and physics. Certificates this year were issued upon presentation of diplomas from certified high schools, or credentials showing that the applicant had passed the entrance examination to colleges admitted to membership in the Ohio Association of Colleges.

Under these conditions and upon this examination the number of certificates issued on credentials was as follows in the cities named: Cincinnati, 70; Cleveland, 50; Columbus, 55; Toledo, 6. Number of certificates issued on examination in respective cities (same order), two, one, two, two. Certificates issued on examination, eleven, three, six, four. Certificates issued on removal of conditions (same order), thirteen, three, six, two. Total, in Cincinnati, 96; Cleveland, 57; Columbus, 69; Toledo, 14. Total number of new applicants examined, in Cincinnati, 20; Cleveland, 5; Columbus, 13; Toledo, 8. Number who failed (cities in same order), six, none, five, two; two withdrawing, one in Cincinnati and one in Cleveland. There were failures (whole state) in the following branches: Literature, nine; rhetoric, nine; compostion, one; physics, two; botany, one; algebra (including those who were removing conditions), twenty-four; geometry, twenty-four; United States history, four; physiography, one; Latin (including two who were removing conditions), thirty-five.

The total number of certificates issued in 1902 was, in Cincinnati, 82; in Cleveland, 46; in Columbus 111; in Toledo, 38; total, 277; thus showing a falling off for 1903 of forty-one.

COLUMBUS MILK SUPPLY.

A pretty large per cent. of dairy cows belonging to Columbus dairymen is unquestionably tuberculous. The milk, according to the evidence presented, is not infected only in advanced cases, but even this claim is denied upon good authority which claims that milk from all tuberculous cows is dangerous in that it may transmit the bacilli. That there is danger of tuberculosis in the city milk there is no question.

In face of this fact, many of the dairymen, represented by the Dairymen's Association, are taking a bold stand against, not an effort to eradicate consumption seeds from their milk supply, but the simple rules for cleanliness. Should canned goods contain a poison to produce a temporary derangement of digestion, the prevention of the sale of such goods would soon be enforced and the producers prosecuted for the contamination of food. What then should be done with a food delivered daily to nearly every home in the city, a food of almost universal consumption by the young, a food known to contain such awful possibilities?

The demand made by scientific investigations to enforce sanitary regulations of the milk supply must be reinforced by a popular demand strong enough to break down the barriers of political and commercial selfishness.

We have a sufficient number of state officers with salaries good and plenty, whose duty it is to look to the milk supplies in cities. The state conducts a veterinary college in connection with the O. S. U., with a dairy attached to demonstrate this important industry. The state house contains the dairy and food commissioner, the state veterinarian, and the state board of health, and the city board of health besides. With this grand array of functional activity bearing upon the milk supply, directly or indirectly the capital city taken as a fair index to the worth of such activity, our claims to scientific and industrial progress are wrecked upon the rocks of ignominous failure.

J. W. C.

THE ENNO SANDER PRIZE.

The Association of Military Surgeons of the United States offers a gold medal of the value of one hundred dollars, as a first prize, and a life membership in the Association, of the value of fifty dollars, for the first and second best essays respectively on "The Relation of the Medical Department to the Health of Armies." The following are the conditions of the competition as furnished over the signatures of Dr. J. C. Wise, President, and Dr. J. E. Pilcher, Carlisle, Pa., Secretary:

"1. Competition is open to all persons eligible to Active or Associate Membership in the Association of Military Surgeons of the United States. 2. The prize will be awarded upon the recommendation of a Board of Award selected by the Executive Committee. The Board will determine upon the essay to which the prize shall be awarded, and will also recommend such of the other papers submitted, as it may see fit for honorable mention, the author of the first of which shall receive a life membership in the Association. 3. In fixing the precedence of the essays submitted, the Board will take into consideration—primarily—originality, comprehensiveness and the practicability and utility of the opinions advanced, and—secondarily—literary character. 4. Essays will consist of not less than ten thousand, and not more than twelve thousand words, exclusive of tables. 5. Each competitor will send three typewritten copies of his essay in a sealed envelope to the Secretary of the Association, so as to reach that officer at least one month before the next ensuing annual meeting, in the present case on or before September 10, 1904. 6. The essay shall contain nothing to indicate the identity of the author. Each one however will be authenticated by a nom de plume, a copy of which shall, at the same time as the essay, be transmitted to the Secretary in a sealed envelope together with the author's name, rank and address. 7. The envelope containing the name of the successful competitor will be publicly opened at the next succeeding annual meting of the Association, and the prize thereupon awarded. 8. The successful essay becomes the property of the Association of Military Surgeons of the United States, and will appear in its publications.

Board of Award, 1904: Lieutenant Colonel John Shaw Billings, U. S. Army; Brevet Brigadier General George Ryerson Fowler, New York; Surgen Henry Gustave Beyer, U. S. Navy."

HOUSEHOLDERS REQUIRED TO REPORT DANGEROUS COMMUNICABLE DISEASES.

The Board of Health of Michigan has taken an important step, according to the Journal of the American Medical Association, in requiring householders as well as physicians to report diseases dangerous to the public health. A circular for general distribution has been prepared, in which it is declared that "consumption, pneumonia, cerebrospinal meningitis, typhoid fever, diphtheria, whooping cough, measles, scarlet fever, smallpox, glanders and rabies are dangerous communicable diseases, and therefore diseases dangerous to the public health, required by law to be reported. Every case of each of these diseases must be reported to the local health officer by the householder, hotel keeper, boarding-house keeper or physician. The law is quoted showing the duty of such persons to so report. The use to be made of such reports is not the same for all diseases, because the manner of spreading and the measures for restriction are not the same for all diseases. Houses infected with some diseases are to be placarded, with others not. Persons having some of the diseases are to be isolated. Relative to each of those diseases, such facts are published by the State Board of Health, and a pamphlet on any one of these diseases, or on all of them, will be sent to any person interested, who requests it from the office of the board at Lansing."

CRIPPLED AND DEFORMED CHILDREN.

The State Commission "to report on the feasibility and desirability of the state caring for, treating and educating crippled and deformed children," of which the Rev. John Hewitt, Columbus, O., is President, and Dr. E. C. Brush, Zanesville, Secretary, respectfully solicit the aid of physicians throughout the state in collecting statistics for a report on this important subject, which they desire to make to the Governor on or before December 1, 1903.

This report is to show, among other things, as nearly as possible, how many crippled and deformed children in the state, regardless of social condition, might be benefited by the establishment of a state institution for their care, and will be used by the Governor, as a guide in making recommendations to the General Assembly in regard to the same.

Any physicians having knowledge of crippled and deformed children may greatly aid this unfortunate class, by reporting the case to this commission. For any who may desire them, blanks for this purpose will be sent on application to either of the officials.

This is a most commendable and timely undertaking and we wish to endorse it most heartily and hope physicians will lend aid in this movement to furnish care, treatment and education for this unfortunate class.

CONTAGIOUS DISEASES IN COLUMBUS.

The following are taken from the report of the Columbus Board of Health for October: Total deaths from all causes, 138;

total deaths from contagious diseases, 6; typhoid fever, number of cases reported, 22, deaths, 5; smallpox, number of cases reported, 1, deaths, 1; scarlet fever, number of cases reported, 17; chickenpox, number of cases reported, 9; diphtheria, number of cases reported, 8; measles, number of cases reported, 3; whooping cough, number of cases reported, 6; smallpox, number of cases reported, 2, 1 death; tuberculosis, number of deaths in city, 19, at State Hospital 3.

For the first time in several months Columbus is free from smallpox. There are, according to the reports of the State Board of Health, three cases in Franklin County, but there are none at the present in the corporate limits of the city.

AN OVERSIGHT.

In a Journal that has consistently advocated non-sectarian medicine and high ethical standards, a personal notice, such as appeared in our last issue of an "osteopathic physician," with location, place of graduation and specialty all set forth, produced no ruder shock to its gentle readers than it did to the editor himself. A new stenographer to whom all Dr.'s look pretty much alike clipped this notice from the daily paper—bad spelling and all—to fill up a niche in the personal column. By some chance it escaped the editor's notice until the journal was bound and delivered. It was the "banana peel" upon which an editor sometimes slips and falls, attracting attention, but usually hurting no one but himself.

STATE EXAMINATION FOR ENTRANCE TO OHIO MEDICAL COLLEGES HELD AT COLUMBUS, CLEVELAND, CINCINNATI AND TOLEDO, SEPTEMBER 25-26, 1903.

ENGLISH LITERATURE.—1. Shakespeare: At what time did Shakespeare live and what is that period of English Literature called? State his influence on the English language. For what kind of literature is he noted? Name some of his works. State which ones you have read and what you consider one of his best works. Why? 2. Scott: Was Walter Scott a writer of prose or poetry? Give a brief sketch of his life, what he wrote and his style. 3. Dickens: Give the time at which Dickens lived. State some of his characteristics. Give a brief sketch of any one of his works. 4. Name at least five prominent

English Poets. Select one of these and name some of his poems. 5. Name at least five American poets and give at least five of their poems and tell to which one each poem named belongs. 6. State the nationality and whether a writer of prose or poetry: Washington Irving, Defoe, Harriet Beecher Stowe, Rudyard Kipling, Milton, Poe, Macaulay, W. H. Prescott, Gibbons, Bulwer. (Answer five questions.)

RHETORIC.—1. State at least three rules which should aid one in the choice of words. 2. Explain the nature of the error in the following sentences: (1) Each of the ladies were perfect in their parts. (2) I would have thought that these were just the people who should have been most welcome. (3) He's not the man to tamely assent. 3. State the fundamental principles of narration. 4. Is the following sentence periodic or loose? Why? Rearrange the sentence so that it shall be the kind of sentence, periodic or loose, which in its present form it is not: "Still further to illustrate the distinction between periodic and loose sentences, an effective example of each kind may be quoted." 5. What is a Figure of Speech? What value has it in literature? Name the following figure and show where its force lies:

"Aloft on sky and mountain wall
Are God's great pictures hung."

COMPOSITION.—Select one of the following subjects and write an article of not less than three hundred words and not more than five hundred words. Care should be taken in spelling and pnctuation, in form as well as in thought: 1. A Summer Vacation. 2. A Sketch of George Washington or Abraham Lincoln. 3. Why I Chose the Medical Profession.

PHYSICS.—1. Define *cohesion*; state the theory which explains it; illustrate by an example. 2. What is meant by a pressure of one atmosphere? 3. Tell how you would find the specific gravity of a body which is heavier than water and insoluble in it. 4. Describe the thermometer as to construction. 5. What happens when a portion of the air in a room, or in an open field is heated? State the reason for the phenomenon. 6. Is there any heat in ice? Is there any heat in a stone? And state the temperature for which your answer is true. 7. What is distillation? 8. What is sound? 9. What is the effect upon rays of light of a convex lens? Of a concave lens? 10. What is difference between the currents of electricity produced by a static electric machine and a simple electric cell?

BOTANY.—1. What are the essential parts of a plant? 2. What are the parts of a complete flower? What are the essential parts of a flower? 3. What are annuals? biennials? perennials? 4. What is the habitat of a plant? 5. What is cross-fertilization? In what ways is it effected? 6. What means does nature use for the dissemination of seeds? 7. Sketch and name four shapes of leaves. 8. Name and illustrate two kinds of venation. 9. What is the function of root hairs? 10. What parts of plants may be used for food?

ZOOLOGY.—1. Define biology, zoology, morphology, physiology. 2. What are protozoa? Metazoa? Give examples. 3. Given a collie dog, state the kingdom, branch, class, order, family, genus, species and variety. 4. What is a cell? Its parts? 5. Illustrate reproduction by budding, by citing the animal and describing the process. 6. What effect has environment upon species? 7. Discuss instinct and reason in animals. 8. Give the life history of the frog. 9. Mention some of the means provided for protection. 10. For either the clam, fish or dog, name the organs essential for life and preservation.

ALGEBRA.—1. Find the product of: $(2x \div a) - (3y \div b)$ and $(4x^2 \div a^2) + (6xy \div ab) + (9y^2 \div b^2)$. 2. Find the H. C. F. of $x^3 + 6x^2 + 11x + 6$ and $x^3 + 9x^2 + 27x + 27$. 3. Simplify $(3x^2 + 1) \div (x^2 - 1) - (5x - 2) \div (x + 1) + (2x + 5) \div (x - 1)$. 4. Extract the square root of $x^4 + (2x^3 \div 3) + (10x^2 \div 9) + (x \div 3) + (1 \div 4)$. 5. Solve $ax - (b^2x \div a) = a + b$. 6. A and B have each an annual income of $4000.00. A spends every year $400 more than B. At the end of 4 years their joint savings amount to $4000. What does each spend annually? 7. Expand $[2a - (3^3 \div x)]$. 8. Explain how to clear an equation of fractions and the reason for the method.

GEOMETRY.—1. Prove that every point in the bisector of an angle is equidistant from the sides of the angle. 2. Prove that in the same circle chords equally distant from the center are equal. 3. Show how to circumscribe a circle about a triangle. Proof is expected. 4. Prove that if two chords intersect within a circle the product of the two parts of one is equal to the product of the two parts of the other. 5. Give the proof for the area of a circle. 7. In a right triangle the square of the hypotenuse is equal to what? Give proof. 8. Show how to inscribe a regular hexagon in a circle. Proof is required.

UNITED STATES HISTORY.—1. Describe briefly the early settlers of New England; of Virginia. 2. Who were the first settlers of New York? Of Pennsylvania? 3. Give the cause, or causes, of the war of 1812. 4. What is meant by a "high tariff;" by "free trade"? 5. Name three leading commanders of the Union forces in the Civil War, and three of the Confederate forces. 6. State briefly how and for what term Presidents, Senators and Representatives in Congress are elected. 7. Who makes the laws of the United States? Who makes the laws that apply only to the State of Ohio, and who, in both cases sees that these laws are executed? 8. What was the cause of the late war with Spain, and what territory did the United States acquire by that war?

CHEMISTRY.—1. What is a chemical change? 2. Write the symbols for bromine, calcium, copper, arsenic, hydrogen, iodine, iron, oxygen, potassium, silver. 3. State a simple method of generating and collecting oxygen. 4. What is combustion? 5. What is the composition of water? How would your prove it? 6. Write formula for sulfuric acid, carbon dioxid, potassium chlorate, ammonium hydrate, silver nitrate, hydrochloric acid. Write the names for NaCl, $Ca\ Co_2$, $H_2\ O$, K O H. 7. Define acid, base, salt. 8. What is a saturate solution? A precipitate? 9. How is an acid neutralized? 10. Give a common test for arsenic.

PHYSIOGRAPHY.—1. How many motions has the earth? What does each produce? 2. Mention some results which would follow if the earth's axis were made perpendicular to the plane of its orbit. 3. Account for the energy developed in cyclonic storms. 5. In what respect has the New York Central Railroad natural advantages which the Baltimore and Ohio does not have? 6. What is meant by "the glacial drift"? Where is it? 7. What are glaciers? Where are they formed? 8. Where are the great coal beds of United States? 9. Upon what water is St. Louis? Duluth? Liverpool? Manila? San Francisco? New York? Philadelphia? San Juan? London? Constantinople? 10. What is an artesian well?

LATIN.—1. Caesar B. G. Book I, Chap. X. Translate Cesari renuntiatur *Helvetiis* esse in animo per agrum Sequanorum et Aeduorum iter in Santonum fines *facere*, qui non longe a Tolosatium finibus absunt, quae civitas est in provincia. Id si fieret, intelligebat magno cum periculo provincias futurum, ut homines bellicosos, populi Romani inimicos, locis patentibus maximeque frumentariis finitimos *haberet.* Ob eas causas ei *munitioni,* quam fecerat, Titum Labienum legatum praefecit; ipse in Italiam magnis itineribus contendit duasque ibi legiones *conscribit,* et tres, quae circum Aquileiam hiemabant, ex hibernis educit. Give the Principal Parts of *facere, haberet, conscribit,* and *educit.* Give the case and rule for *Helvetiis* and *munitioni.* 2. Caesar B. G. Book III, Crap. XXIV. Translate: Prima *luce,* productis omnibus copiis, duplici acie instituta, auxiliis in mediam aciem conjectis, quid hostes consilii caperent exspcetabat. Illi, etsi propter multitudinem et veterem belli gloriam paucitatemque nostrorum se tuto dimicaturos existimabant, tamen tutius esse arbitrabantur, obsessis viis, *commeatu* intercluso, sine uno vulnere *victoriá* potiri; et, si propter inopiam rei frumentariae Romani sese recipere coepissent, impeditos in *agmine* et sub sarcinis infirmiore animo adoriri cogitabant. Decline *luce* and *agmine* in the singular. Give the case and rule of *commeatu* and *victoria.*

Obituary.

DR. HUGH M. LASH.

Dr. Hugh Morrison Lash, whose early professional career was spent in Athens, O., was born near Athens, June 11, 1844. He received his medical education in Cleveland and Cincinnati, graduating from the College of Medicine and Surgery in 1870. He practiced Medicine in Athens for twenty years, moving in 1890 to Indianapolis, where he continued in active practice till the time of his death, September 19, 1903. The winter of 1880 he spent in graduate studies at Jefferson Medical College. He leaves a widow and a son, M. R. Lash, of Des Moines, Iowa, and a daughter, the wife of Dr. T. P. Adair, of Marion, O. Dr. Lash enjoyed an extensive acquaintance and was held in high esteem at home and abroad. "He was ever a genial, gracious personality," and a physician of ability and energy. A beautiful memorial upon his death by the Indianapolis Medical Society concluded with these words: "In the death of Dr. Lash, that society loses one of its loyal members, the profession an able counselor and his family a devoted father and husband. We wish to convey to his family our deep sympathy in their great bereavement, and express our appreciation of his exemplary life."

Practical Therapeutics.

MUCOUS COLIC:

Picis liquidæ	℥ iii
Aq. calcis	ʒ viii

Triturate till water is saturated. Percolate through ℥viii powdered wild cherry bark. Dose: Wine glassful.

H. C. WOOD.

BRONCHITIS:

℞.	Potassic nitrate	℥ i
	Lemon juice	℥ iv
	Syrup ipecac	℥ ss
	Syrup simp	℥ ii ss

M. Sig. A tablespoonful every three hours.

WOOD.

ASTHMA:

℞.	Potass. iodid	ʒ ii
	Tr. opii camph	āā ʒ iv
	Tr. lobelia	
	Syr. tolutani	℥ iii

A teaspoonful three times a day.

TROUSSEAU.

PRURITUS, LOCAL OR GENERAL:

℞.	Acidi carbolici	ʒ j
	Potassium fusa	ʒ ss
	Aqua dest ad q. s.	℥ viij

M. Sig. Apply freely and often. Tinct. cannabis indica in ascending doses, internally. T. M. LIPPITT, M. D.

FOR MIGRAINE: For obstinate cases of migraine take the following.—Medcal Summary.

℞.	Fld. ext. hyoscyamus	gtt. xx
	Tr. nux vomica	gtt. xxx
	Sodium bromide	ʒ j
	Peppermint water	℥ j

M. Sig. Twenty drops every ten minutes in lemon water.

LUCIEN LOFTON.

Medical News Notes.

Dr. E. G. Denison, O. M. U., 1903, was married November 12th to Miss Myrtle Long of Omaha. They will live at Spring Valley, Wyoming.

PUBLIC BATHS IN BALTIMORE.—Mr. Henry Walters gave the city of Baltimore $93,000 for public baths. Some of them are in operation and are well patronized.

JOURNAL WANTED.—No. 11, Vol. 2 (May, 1884), of the COLUMBUS MEDICAL JOURNAL is wanted to complete our file. Anyone supplying this number will confer a great favor, and will receive pay for same.

Dr. D. Tod Gilliam, Professor of Gynecology in Starling Medical College, has just published a text-book of Practical Gynecology. It contains 350 engravings besides a colored frontispiece and eleven full-page half-tone plates. F. A. Davis Company are the publishers.

At the last election the following physicians were elected members of the Ohio Legislature: Senate, Fifth and Sixth District, Dr. J. G. Carson; House of Representatives, Dr. A. J. Crawford, Athens; Dr. M. M. Carrothers, Hancock County; Dr. C. D. Watkins, Licking County; Dr. J. H. Criswell, Marion; Dr. Errett Le Fever, Morgan and Noble Counties; Dr. E. B. Harper, Summit County; Dr. P. M. Wagner, Tuscarawas County; Dr. O. H. Nihart and Dr. Y. Stephenson, Brown County; Dr. J. E. Miller, Pickaway County.

According to the reports received by State Board of Health there are quite a number of cases of smallpox in Ohio at the present time. In Guernsey County there are 38 cases; in Stark, 31; Perry, 31; Marion, 31; Putnam, 18; Mahoning, 13; Hamilton, 12; Harrison, 11; Jefferson, 10; Ottawa, 8; Butler, 7; Franklin, 3; Lawrence, 5; Cuyahoga, 4; Coshocton, 4; Columbiana, 4; Trumbul, 3; Montgomery, 3; Wood, 2; Morow, 2, and one case in each of the following counties: Seneca, Hancock, Delaware, Union, Licking, Muskingum, Belmont, and Summit. There are no cases now in the Capital City.

Recent Medical Books.

BOOKS RECEIVED DURING OCTOBER.—Nose and Throat Work for General Practice. Richards. International Journal of Surgery.

X-Ray in Therapeutics and Diagnosis. Pusy & Caldwell. W. B. Saunders & Co.

Modern Materia Medica and Therapeutics. Stevens. W. B. Saunders & Co.

Thesaurus of Medical Words and Phrases. Barton & Wells. Saunders & Co.

Text Book of Clinical Anatomy. Eisendrath. W. B. Saunders & Co.

Text Book of Obstetrics. J. C. Webster. W. B. Saunders & Co.

Text Book of Operative Surgery. Bickham. W. B. Saunders & Co.

Text Book on Practice of Medicine. Andus. W. B. Saunders & Co.

Clinical Examination of Urine and Urinary Diagnosis. Ogden. Saunders & Co.

Nervous and Mental Diseases. Church & Peterson. W. B. Saunders & Co.

Functional Diagnosis of Kidney Disease. Casper & Richter. P. Blakiston's Sons Co.

Practical Medical Series, Vol. X, September. Head. Year Book Publishers.

Physics aand Inorganic Chemistry. McGlaunan & Pederson. Lea Bros. & Co.

Practice of Medicine. Tyson. P. Blakiston's Sons Co.

Practice of Obstetrics. Edgar. P. Blakiston's Sons Co.

International Clinic, Vol. III, 13th Series. J. B. Lippincott Co.

Practical Gynecology. Montgomery. P. Blakiston's Sons Co.

Anatomy. Hale & Pederson. Lea Bros. & Co.

Hygiene and Sanitation. Egbert. Lea. Bros. & Co.

Clinical Pathology of the Blood. Ewing. Lea Bros & Co.

CLINICAL EXAMINATION OF THE URINE AND URINARY DIAGNOSIS. A Clinical Guide for the use of Practitioners and Students of Medicine and Surgery. By J. Bergen Ogden, M. D., formerly Instructor in Chemistry, Harvard University Medical School, Boston; Assistant in Clinical Pathology, Boston City Hospital, etc. Second revised edition. Handsome octavo volume of 418 pages, illustrated, including 11 plates, 9 of them in colors. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth $3.00 net.

The aim of this work is to present in as concise a manner as possible the chemistry of the urine in its relation to physiologic processes; the most approved working methods, both qualitative and quantitative; the diagnosis of diseases and disturbances of the kidneys and urinary processes. It is a work eminently in demand, since most of the books on the urine are devoted exclusively to urinary chemistry, a knowledge of urinary diagnosis being obtainable only by an extended search through works on medicine, surgery, pathology, and chemistry.

In this, the second edition, special effort has evidently been directed toward making the text complete and bringing it absolutely down to the present day advances in the subject. Important changes have been made in Part I, especially in connection with the determination of Urea, Uric Acid, and Total Nitrogen; and the subjects of Cryoscopy and Beta-Oxybutyric Acid have been given a place. The changes in Part II, while not so extensive, are nevertheless numerous and practical, and show that the author has spared neither pains nor time in making the revision thorough. It is a good book, and both student and practitioner will find it a valuable aid in their clinical work. We recommend it.

A TEXT-BOOK OF CLINICAL ANATOMY. For Students and Practitioners. By Daniel N. Eisendrath, A. B., M. D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons); Attending Surgeon to the Cook County Hospital, Chicago, etc. Handsome octavo of 515 pages, beautifully illustrated with 153 illustrations, a number in colors. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $5.00, net; sheep or half morocco, $6.00, net.

The subject of anatomy, and especially clinical anatomy, is so closely allied to practical medicine and surgery that it is absolutely impossible for a physician or surgeon to practice his profession successfully unless he has an intimate knowledge of the human structure. In his preface the author states that the primary object of his work is to serve as a bridge for both the practitioner and student from descriptive anatomy, as it is usually taught in the first two years of a medical course, to its daily application at the bedside, in the clinic, or in the operating room. The entire subject is discussed with a thoroughness and precision that spring from experience. The method of illustrating the subject is novel, special attention having been given to surface anatomy. The illustrations themselves are the result of a great deal of painstaking study, outlines having been marked upon a normal artist model, and then photographed. They are reproduced in the highest style of art, and show far better than any we have seen the relation of anatomic structures from a clinical standpoint, presenting to the practitioner a picture as met at the bedside, with the skin covering the tissue. The work is indeed magnificent text, illustrations, paper, typography, and binding being of unusual-excellence. M.

EWING ON THE CLINICAL PATHOLOGY OF THE BLOOD. New (2d) edition. A Treatise on the General Principles and Applications of Hematology, by James Ewing, M. D., Professor of Pathology, Cornell University Medical College, New York. New (2d) edition, revised and enlarged. In one octavo volume of 492 pages, with 43 engravings and 18 full page colored plates. Cloth, $3.50, net. Lea Brothers & Co., publishers, Philadelphia and New York.

The exhaustion of an entire edition of a work on a special department of medicine in less than two years is a phenomenal record, and very satisfactorily shows the success which has attended Dr. Ewing's effort to furnish a clear, trustworthy and practical presentation of a subject which, though special, is rapidly impressing great importance upon the profession.

The second edition is now ready, and the following excerpt from the preface not only shows the changes which will be found in the volume, but also affords an interesting indication of the advances that are being made in the subject.

During the past two years the contributions to the knowledge of the blood in both its clinical and its pathological aspects have been very numerous, and in many instances, of fundamental importance. In the present edition the author has endeavored to incorporate the results of these recent studies in such form as will be found available both for the practitioner and for the student. Among the changes thus introduced are considerable additions to the chapter on Technics, The Serum Test for Blood and the subject of Cryoscopy. The discussion of the Morphology of Blood Cells has been enlarged. Some noteworthy additions to the knowledge of Leukemia have been included in that chapter. The essential features of Ehrich's theories on Immunity have been presented.

The volume shows considerable increase in size and in the number of engravings and plates, but as the indications all point to a still greater sale, the price of the work has not been increased. M.

A THESAURUS OF MEDICAL WORDS AND PHRASES. By Wilfred M. Barton, M. D., Assistant to Professor of Materia Medica and Therapeutics, and Lecturer on Pharmacy, Georgetown University, Washington, D. C.; and Walter A. Wells, M. D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D. C. Handsome octavo of 534 pages. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Flexible leather, $2.50, net; with thumb index, $3.00, net.

This work is the only Medical Thesaurus ever published. It performs for medical literature the same services which Roget's work has done for literature in general; that is, instead of, as an ordinary dictionary does, supplying the meaning to given words, it reverses the process, and when the meaning or idea is in the mind, it endeavors to supply the fitting term or phrase to express that idea. To obviate constant reference to a lexicon to discover the meaning of terms, brief definitions have been given before each word. As a dictionary is of service to those who need assistance in interpreting the expressed thought of others, the Thesaurus is intended to assist those who have to write or to speak to give proper expression to their own thoughts. In order to enhance the practical application of the book cross references from one caption to another have been introduced, and terms inserted under more than one caption when the nature of the term permitted. In the matter of synonyms of technical words the authors have performed for medical science a service never before attempted. Writers and speakers desiring to avoid unpleasant repetition of words will find this feature of the work of invaluable service. M.

Recent Medical Books.

INTERNATIONAL CLINICS. A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world, edited by A. O. J. Kelly, A. M., M. D. Philadelphia, U. S. A. Volume II, 13th series. 1903. Publishers, J. B. Lippincott Co., Philadelphia, Pa.

The first portion of this volume is taken up with the Summer Diarrheas of Children, and includes articles on Milk Bacteria and Internal Disorders; The Causation, Nature and Prevention of the Summer Diarrheas of Children; The Symptomatology of the Summer Diarrheas of Children; The Dietetic Treatment of the Summer Diarrheas of Children; The Treatment of the Summer Diarrheas of Children and The Treatment of Cholera Infantum.

The second portion treats of Disease of the Pancreas, by Eugene L. Opie and John B. Deaver. There are excellent articles under the head of Treatment, Medicine, Surgery, Pediatrics, Obstetrics, Gynecology and Ophthalmology.

One of the most interesting articles under Treatment is by Levi on Trunecek's Serum in Arteriosclerosis. Especial notice might be given also to an article under Surgery, by Bishop, on Abdomino-Pelvic Diagnosis.

Vol. III is a symposium of articles on Diseases of the Gall Bladder and Gall Ducts; also several practical articles on treatment, the most prominent of which is one of Cantèmesse on The Serum Treatment of Typhoid Fever. There are several articles under the head of Medicine by such noted clinicians as Craig, Leslie, Mays, Fowler and Poynton. Under the head of Surgery Dr. J. A. Bodine, of New York, treats of Cocaine Anesthesia. There are several other practical articles by noted authors. The reputation of the contributors to this volume is sufficient guaranty as to the value of the matter upon the various subjects they have written. M.

AN EPITOME OF INORGANIC CHEMISTRY AND PHYSICS. By A. McGlannan, M. D., of the College of Physicians and Surgeons, Baltimore. 12mo of 216 pages, illustrated with 20 engravings. Cloth, $1.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

For the needs of the student in keeping fully abreast with his medical course, or in preparing for examination, or for the physician or surgeon who desires quickly to post himself to date, the Medical Epitome Series is unsurpassed. M.

NOSE AND THROAT WORK FOR THE GENERAL PRACTITIONER. By George L. Richards, M. D., Fellow American Laryngological, Rhinological and Otological Society; Fellow American Otological Society; Associate Editor Annals of Otology, Laryngology and Rhinology; Otologist and Laryngologist Fall River Union Hospital, Fall River, Mass. Price $2.00. Published by International Journal of Surgery Co., N. Y.

This book derives especial importance from the fact that the diseases described therein constitute so large a share of the physician's daily routine of practice. No space is occupied with theory, and the information given is based for the most part upon the author's own extensive clinical experience in diseases of the nose and throat. For the sake of completeness a number of conditions are discussed that properly belong to the specialist, but with these few exceptions the diseases described are such as can be treated by the general practitioner. A noteworthy feature of this work is the large number and excellence of the illustrations. M.

THE PRACTICAL APPLICATION OF THE ROENTGEN RAYS IN THERAPEUTICS AND DIAGNOSIS. By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois; and Eugene W. Caldwell, B. S., Director of the Edward N. Gibbs X-Ray Memorial Laboratory of the University and Bellevue Hospital Medical College, New York. Handsome octavo volume of 591 pages, with 180 illustrations, nearly all clinical. W. B. Saunders & Co., 1903. Cloth, $4.50, net; Sheep or Half Morocco, $5.50, net.

After a careful perusal of this work it is apparent that the aim of the author to elucidate fully the practical aspect of the subject has been accomplished. It is evident that all the authentic literature which has developed since Roentgen's wonderful discovery has been carefully digested, this being supplemented by the extensive experience of the authors. The value of the X-rays in diagnosis has been discussed in a thoroughly practical manner, and their limitations in this field indicated. Particular attention has been devoted to the use of the X-rays in therapeutics. Nearly all the illustrations in this section represent actual clinical subjects, and show with unusual fidelity the condition before the use of the X-rays, at various stages of their application, and, finally, the therapeutic results obtained. Full details are also given as to the use and management of the apparatus necessary for X-ray work. All the methods with which the best results have been achieved have been carefully described in a comprehensive way. There are chapters on X-Ray Tubes, Induction Coils and Controlling Apparatus, Static Machines, Fluoroscopy, Radiography, Photographic Materials Used in Radiography, etc. This section is also fully illustrated with instructive photographs and drawings of the apparatus, including four beautiful full-paged colored plates of X-Ray tubes. In fact, the work will be found of invaluable assistance, not only to the general practitioner, but also to the dermatologist, presenting, as it does, the very latest advances in X-ray therapeutics and diagnosis. M.

THE COLUMBUS MEDICAL JOURNAL.

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HYDROPHOBIA, WITH REPORT OF A CASE.

BY JUDSON A. HULSE, B. S., M. D., AKRON, O.,
Anesthetist to City Hospital.

The word hydrophobia is from the two Greek words, hudor (water) and phobos (dread), meaning dread of water. Synonym, rabies.

An acute infectious disease of animals dependent upon a specific virus and communicated by inoculation to man.

HISTORY.—The disease was known to the ancients, including the East Indians, Egyptians and Israelites, but is not mentioned by Hippocrates, though Democritus, living about the same time, is said to have considered it an affection of the nerves allied to tetanus. Aristotle, however, recognized it and the Latin poets, Virgil, Homer and Ovid mentioned it as did also the historian Plutarch.

ETIOLOGY.—It is a very rare disease. Indeed there are intelligent men in our profession who doubt its existence. Dr. Wilkes, of Guy's Hospital, London, has seen but three cases in more than thirty-five years service, and our own Osler has seen but two cases in all his extended experience.

Rabies is capable of spontaneous development in the wolf, cat, dog, fox and skunk. In the Western States the skunk is especially liable to the disease. The Pasteur Institute at Chicago has treated fifteen persons who were bitten by skunks.

The period of incubation varies, the average being about two months, though claimed after three months have elapsed patient may be considered safe. It is shorter in children than in adults and in wounds about the face and extremities.

Punctured wounds are the most dangerous. Bites from wolves are the most liable to communicate the disease to man, about 40 per cent. of bites from the source resulting in rabies, while only 15 per cent. develop the disease from the bites of rabid dogs.

The pathology is confined to lesions in the nervous system. Briefly, the morbid anatomy consists of an acute inflammation of the cord with destruction of the nerve elements resulting in a hyperplasia of the neuroglia to replace them. Often there are no discoverable changes.

SYMPTOMS.—The patient is depressed and melancholy. There may be irritation and numbness in the region of the bite. Wakefulness and a sense of impending danger are prominent and early symptoms. Increased sensibility and some slight difficulty in swallowing liquids are now manifest. All the symptoms become aggravated as the case advances until violent reflex spasms develop, affecting the muscles of the larynx, pharynx and mouth, rendering deglutition difficult and at times impossible. An extreme degree of excitability now manifests itself and the mere sight of water, draughts of cool air, or sudden noises produce spasms. The mind is clear in the intervals, but maniacal symptoms are present in some cases. The pulse is rapid and the temperature ranges from 101 to 103. The spasms are accompanied by intense dyspnea and extreme mental pain, as evidenced by the terrible expression of agony and despair in unfortunate victim's countenance. After from one to three days of suffering the paralytic stage develops, the spasms subside and death occurs from heart paralysis.

DIAGNOSIS.—The only diseases with which hydrophobia is likely to be confounded are, tetanus and hysteria. But the history of the bite and period of incubation, together with the set of muscles affected, will quickly settle the diagnosis.

From hysteria it is more difficult, but the absence of febrile conditions and a knowledge of the fact that the animal which inflicted the wound, was not rabid, will clear the diagnosis.

PROGNOSIS.—Fatal in every case.

TREATMENT.—Among fanciful methods of treatment there is the madstone. If it adheres virus is present, if it becomes coated green the virus is extracted, and so on. Raw livers of dogs have been fed to patients and brains of rabid rabbits have been suggested as therapeutic food. In India entrails of an insect are administered, which cause bloody stools.

Immediately upon being bitten by a supposed rabid animal a ligature should be applied upon the limb above the wound and the wound cauterized by burning nitric acid. The wound should not be closed, but kept freely open and allowed to bleed as much as it will. The animal should be kept under lock and key for at least one week and closely observed for signs of madness. If, at the end of that time it is well there is no danger for the person bitten. When the disease is once manifest the patient should be kept in a dark room free from noise or annoyance of any kind. Restraint is not usually necessary. Nutrient enemata should be employed and water in large quantities given by the rectum. During the convulsions chloroform should be administered by inhalation. Chloral and the bromides are useful, as is also morphine hypodermatically.

PREVENTIVE INOCULATION.—The work of Pasteur in developing the treatment of rabies by preventive inoculation constitutes by far the most important addition to our knowledge of the nature of the affection and the possibilities of its cure. The thereapeutic material used is a portion of the spinal cord of a rabbit that has died of hydrophobia. This is rubbed up in sterile cool water. These spinal cords have been dried over caustic potash, which diminishes the amount of virus, but does not attenuate it. The virus is in a condition termed fixed. This is a virus which, inoculated subdurally in a rabbit, causes rabies in six days. In order to attain this condition of fixation it is necessary to inoculate from rabbit to rabbit until it has passed through about fifty. In the first inoculation rabies does not develop until the completion of 11, 12 or 15 days. The medulla oblongata is the part used in the inoculations of animals. Pasteur demonstrated its harmless efficacy. The method of treatment is subcutaneous hyperdermic injections. The abdominal region is the part selected. The inoculation is begun with the cord that has been preserved for fourteen days; the second day, cord thirteen days old is used; the third day, the twelfth day cord, etc., until the fifth day cord is reached, when a new series of inoculations is commenced with the cord of the ninth or tenth day. In the intensive method the inoculations of the morning of the first day are from cords of the fourteenth and thirteenth days, rubbed up together, cords of twelfth and eleventh days being used the same evening. Cords of tenth and ninth days the following morning and cords of the eighth and seventh days the same afternoon. On the third day cord six days old is used; on the fourth cord five days old; on the fifth cord four days old; on the sixth day, cord three days old is used. Then a new series is begun with cord five days old.

After from one to seven weeks' treatment the patient is regarded as immune and the subsequent development of rabies is but slightly to be feared, as the mortality is but one-third of one per cent. in patients so treated.

I am indebted to Dr. N. G. Keirle, director of the Institute at Baltimore, and to Dr. A. Lagonire, of the Chicago Pasteur Institute, for much valuable information, which they kindly furnished me, for use in the preparation of this paper.

REPORT OF CASE—HYDROPHOBIA.

Miss Nora Tuttle, age 14, of Courtland, O., my old home, a girl whom I had known from her childhood, was visiting at my home last summer. Two months previous to her visit she was bitten through the left ear by a strange pup which, to all appearances was playing with her baby sister on the floor. She was bitten while in the act of stooping to take the child away. No physician was called, but the wound was disinfected with dioxogen and it healed quickly and kindly. The family joked about the affair at the time and the incident was forgotten. She came to our home about the first of July and seemed well and happy, although at times she had momentary sensations of evil forebodings, which, while noticed by myself and other members of the family, elicited no anxiety on our part because of the girl's rapid growth and nervous temperament. On Tuesday, July 15, she complained of a stinging sensation in the bitten ear, followed by numbness. I examined it and noticed some congestion and blueness. Headache and pain in left side of neck were now present, which the usual remedies failed to relieve, but which was finally relieved by the use of moist cloths which, when applied, caused nervous startings. She was wakeful Tuesday night, but seemed all right Wednesday, though for some reason, which she could not explain, did not drink any liquids. Though thirsty, she would go in where the water was kept, but return without touching it. She spoke of the wound and the dog and the fear of death from hydrophobia. I calmed her fears in this regard and she never referred to it again. Thursday she seemed improved, but drank no water. Accompanied by my mother she went shopping and appeared much improved mentally, laughing and joking, but did not sleep Thursday night. Friday she seemed well enough and tried to drink water, but could not. During supper, in an attempt to drink tea, she was seized with the first convulsion, which was violent, but of short duration. It frightened her and as soon as she recovered her breath, ran screaming to my mother. She became very nervous now, but had no more convulsions until 9 p. m., when they came on in rapid succession. The convulsions were so violent that it required two persons to restrain her. She was spitting constantly. By 10 o'clock the nerve centers had become so irritable that the mere mention of water was sufficient to cause a convulsion. The temperature was 102° and the mental agony extreme. During the attack she would seize us and hold on like a vice, becoming maniacal, but as soon as the spasms had subsided would express a pitiful concern, fearing she had hurt us. Dr. C. W. Millikin now saw the case with me and kindly took charge of it. He ordered 120 gr. bromida per rectum and ice to allay thirst. She managed the ice quite well and declared it was a great comfort to her. To the most imaginative mind Dante's vivid description of hell could not picture anything that would equal the intense mortal fear and anguish now expressed in the girl's eyes, as she lay trembling like a leaf, in anticipation of death in a form she knew not. After the administration of the bromidia she became quiet, the convulsions ceased and she fell asleep and slept well the entire night. The following morning the convulsions were resumed, being preceded by hallucinations. Dr. Millikin had not yet come in and I administered more bromidia by rectum and chloroform by inhalation until the convulsions ceased. She was now spitting frothy mucous constantly, the so-called "cotton spitting," and it was profuse. About 9 a. m. her general condition had very much improved, the convulsions had entirely ceased. She sat up and partook of a light breakfast and was rational and even cheerful in her demeanor. The pulse remained weak and rapid and she died suddenly of syncope at about 10 a. m.

The principle points of interest in this case seem to me were:

1. The evil forebodings for weeks in advance of any other symptoms.
2. The peculiar stinging with congestion in the wound.
3. The intense hyperdrosis, clothes wet.
4. The fact that ice can be used to allay thirst when water cannot.
5. The marvelous power of bromidia in controlling the convulsions and inducing sleep.

A very rare disease, the text-books say, and so it is, but to him who has been called upon to stand helplessly by and witness the death throes of a friend begging piteously for relief which he cannot give, the study of the disease assumes a new aspect and the work of that great scientist, Pasteur, stands out to him not so much in the light of science, but as the work of an unselfish life given in the noblest service to suffering humanity.

The Newport Hospital Trustees have received of Mrs. Cornelius Vanderbilt, Sr., $250,000 to build and equip, on the grounds of the institution, a memorial to her husband, to be known as the Cornelius Vanderbilt Pavilion.

The regular meeting of the Marion County Medical Society was held in their rooms, on the night of December 1. After the programme of the meeting, which was of unusual interest, the annual election of officers was held. The officers for the year are: Dr. A. M. Cram, President; Dr. Robt. C. M. Lewis, Vice president; Dr. W. O. Weeks, Secretary; Dr. F. B. Sawyer, Treasurer; Dr. C. E. Sawyer, Member Board of Censors.

SPORADIC CRETINISM, WITH REPORT OF A CASE.

BY FRED FLETCHER, M. D., COLUMBUS, O.

Hazel H., female; age three years and four months.

FAMILY HISTORY.—Parents, American born and living, as are the paternal and maternal grandparents of patient. Neither dyscrasiæ, idiocy, goitre, Grave's nor Gull's disease play a part in the present generation or collateral family branches. Relative to syphilis and consanguinity the history is negative.

The father is twenty-six years old—an immoderate worshiper at the shrine of Bacchus—and healthy. He is the eldest of a family of nine children. A younger brother and sister have psoriasis. The mother is aged twenty-six, a woman of average build, and until her first confinement, enjoyed excellent health. She has had two children; the younger, a girl aged two years, is robust.

PERSONAL HISTORY.—The patient, their first offspring, was born at full term and after a normal labor. She weighed six and a half pounds, was normally developed, and thrived for the first eight months subsequent to birth.

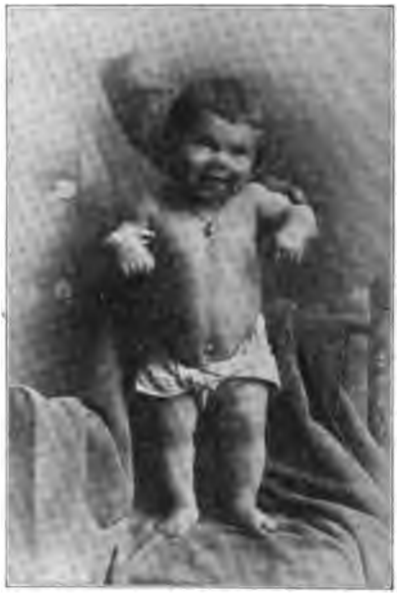
A protracted convalescence followed an attack of cholera infantum at the age of nine months, and dating from this period the child ceased to grow, remained puny, and gradually took on a peculiar appearance. She succumbed to none of the contagious maladies or infections of infancy, was bottle-fed, treated continually for constipation, and given the care requisite for a babe of six months. An obstinate eczema of the face and scalp required treatment during the second year.

The photograph, No. 1, taken before treatment was instituted, flatters, and gives but a vague idea of her cretinoid appearance. The case was typical. She was three years old when seen by the writer.

EXAMINATION.—Weight, 22 pounds; height, 27 inches; circumference of head, 16½ inches.

The slightest provocation from other children would disturb her equanimity and provoke a violent paroxysm of anger. She was, however, usually good natured and possessed of some intelligence. Rachitic manifestations were absent. The cry was stridulous. She had never talked. The tongue did not protrude and evidenced no appreciable enlargement. The thyroid gland could not be palpated.

The dwarfed body, large head, short neck, persistent anterior fontanelle, delayed dentition, dull countenance, thick cyanotic lips, puffy eyelids and stubby flat nose were obvious. The skin was of a bronze color, mottled, rough and inactive, and gave the sensation of subcutaneous thickening when grasped in folds. The hair was coarse and had grown well over the forehead. Four imperfectly developed incisors were cut between the fourteenth and twenty-first months. They were carious.



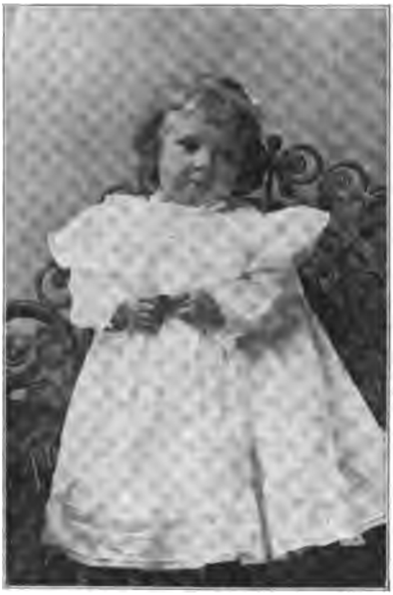
No. 1.

The protuberant belly, small umbilical hernia, short, thick legs, clubbed fingers, puggy feet, supra-clavicular pads of fat, under-developed external gentalia, and pronounced muscular weakness go to make up the clinical picture. She never walked.

The temperature was 97.8°; pulse 88. The heart sounds were indistinct; no murmurs were present. Examination of the lungs revealed the physical signs incident to chronic bronchitis.

The urine contained a few casts, but was otherwise normal.

TREATMENT.—In consequence of an acute attack of bronchitis, treatment was not instituted until March 4. On this date a quarter grain of Park-Davis thyroid extract was given, and repeated twice daily for the succeeding five days. During the following week one-half grain was administered (morning and night) and increased to double the amount at the beginning of the third week. This dosage accelerated the heart's action, occasioned a rise of temperature, a flushed face and slight restlessness.



No. 2.

The drug, however, was continued without other untoward effects, and on March 25 increased to a grain, thrice daily. Two days subsequently the patient evidenced alarming symptoms of thyroidism. A severe gastro-enteritis was excited, the temperature jumped to 105.5°, the heart's action was rapid and irregular, and restlessness was witnessed in its extreme. The drug was withdrawn and treatment reinstituted on April 3. One grain was now given (once daily), and with each succeeding day a fractional increase was made in the dosage. No ill effects followed the use of five grains on April 30.

At this time a very obvious improvement was noted. The child's mental and physical status was improved. She lost 4½ pounds in weight and grew 1¾ inches. The temperature was normal, the skin active, the peripheral circulation bettered, the appetite voracious, and the bowels, which heretofore had been obstinately constipated, now moved with a surprising degree of regularity.

From this time on, the mother (an intelligent woman) was permitted to use her discretion with regard to the amount and time of administration of the medicament. No increase in dosage was made during May and June, and it was thought pertinent to reduce the amount and administer the extract at irregular intervals during July and August. * * * Enteritis occasioned but little trouble, and the child grew. Photograph No. 2, showing result of treatment, was taken three and a half months after the ingestion of the first thyroids. The child weighed 31 pounds, grew 5½ inches in height, and cut 14 teeth. The growth of hair can be noted. The anterior fontanella closed, and the "pot-belly," umbilical hernia, and cretinoid characteristics disappeared. She was intelligent, could run and play with other children, and began to talk.

The above case offers no unusual features. The condition should be recognized early, and when treated will yield a very remarkable mental and physical transformation.

Loss of weight occurs early, and the most rapid improvement can usually be looked for during the first six or eight weeks of treatment. * * * Not infrequently, the pituitary extract can be combined and used to advantage with the thyroids. Dosage should be very gradually increased, and violent symptoms of thyroidism avoided. Find the dose of tolerance and keep the patient on this amount. The patient is at present taking eight grains per diem.

"The results as a rule are most astounding—unparalleled by anything in the whole range of curative measures. Within six weeks a poor, feeble-minded, toad-like caricature of humanity may be restored to mental and bodily health."—Osler.

ABSTRACT—SURGERY OF THE THYROID.*

ILLUSTRATED WITH 100 STEREOPTICON SLIDES.

(Historical and Experimental.)

BY BENJAMIN MERRILL RICKETTS, PH. B., M. D., CINCINNATI, OHIO.

ANATOMY—THYROID (1842-1903). The writings upon the topographical and microscopical anatomy of the thyroid are voluminous. Also its comparative study. Simon, 1844, and Brunier, 1859, having contributed some very interesting articles upon comparative anatomy. Creswell, 1877, reviewed it histologically. The probable bronchial origin of the thyroid and thymus gland have been suggested but never proven. Regeneration of thyroid tissue is impossible. It is highly vascular and supplied by the thyroid vessels. There are seventy or more contributions to this chapter.

PHYSIOLOGY (1806-1903). The function of the thyroid is to secrete thyroidin, which is not understood, except that its absence in animal life results in cretinism, or myxedema. It is supposed to have some relation to the generative organs, also to have a diuretitc influence. It is a cardiac stimulant, which has been known for many years. Its relation to other glands and their functions is not understood. Rush, 1806, wrote upon the functions of the thyroid gland, and von Vest, 1838, upon its relation to other organs.

Meuli, 1883, experimented physiologically upon the function of the thyroid gland. Freund, 1890, considers the function of the thyroid and its relation to the generative organs. There are more than one hundred contributions to this subject.

ANOMALIES (1828-1903) of the thyroid gland are numerous. There may be but one or there may be a dozen lobes with or without an isthmus, or there may be no gland at all. The size, shape and location may also vary, all may be on one side of the neck, usually the left side. All vertebrates are subject to the same laws concerning their variations. Anomalies of this gland are the rule and not the exception in all animal life.

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* Read before Mississippi Valley Medical Association, Memphis, Tennessee, October, 1903.

HISTORICAL. Lingi, 1830, reported a case of substernal thyroid gland, and Sesti, 1846, one post scapular. Curling, 1850, observed the entire absence of the thyroid tissue in two cases. Warren, 1892, reported a case of enlarged accessory thyroid gland at the base of the tongue. There have been forty-two contributions to this subject.

PARENCHYMATOUS GOITRE. Causes not known, many are assigned as follows, in the order of supposed frequency: Heredity, mental worry, water, iron pyretes, earthy salts, nephritis malaria, acute infectious diseases, hemorrhage, parasites and bacilli. It may develop in fetal, infant, child or adult life, and in any kind of animal life, all forms of animal life being governed by the same laws.

HISTORICAL. Sampson, 1855, recorded a case of goitre in an infant, and Keiller, during the same year, one of congenital goitre. Danyau, 1861, reported a case of goitre found in a fetus. Baillarger, 1862, found goitre in animals. This, however, was discovered many years before, probably when first discovered in mankind. Tait, 1875, recorded a case of pregnancy in which the thyroid gland was greatly influenced. Bennett, 1880, noticed what he called menstrual goitre. Hodenpyl, 1896, observed an enormous goitre in a white mouse. There have been something like one thousand contributions to this subject.

EXOPHTHALMIC GOITRE. Etiology not known, more frequent in female, and about the period of sexual activity. Nearly always bilateral.

SYMPTOMS. The most important symptoms, exophthalmos, tachycardia, and enlargement. Eyes do not always protrude. Lesions of restiform body in rabbits and dogs will induce exophthalmos and tachycardia, also tremor glycosuria and salivation.

HISTORICAL. Morgagni, 1761; Parry, 1786; Graves, 1835, and Basedow, 1840, were among the first to record their observations on this very interesting and common disease, which should be generally called exophthalmic goitre.

TREATMENT. Medicaments of but little avail. None are curative, and but few, such as sodium phosphate, salicylic acid, Thymus and suprarenal extracts are palliative.

HISTORICAL—SURGICAL. Tillauz, 1880, was the first to operate. Monheimer 1894 collected 40 cases operated upon. Starr, collected 190 cases operated upon before 1895. Sargo, reported 174 cases operated upon, to 1896. Several hundred operations have been reported, including those of Kocher with about 70 per cent. cured. Kocher says all cases should be operated upon by thyroidectomy. Jaboulay employs exothyropexy, reporting thirty-five such operations with excellent results. He also records a number of sections of the sympathetic nerve, which he was the first to do with more or less success. He also operated by stretching the cervical sympathetic without benefit. He again stretched the pneumogastric nerve for exophthalmic goitre to arrest laryngeal spasm. This procedure is dangerous and not curative. Partial resection, removal of the superior and middle gangliæ with intervening strand, has become an established operation for exophthalmic goitre. Balascesu reported twenty-seven cases treated in this way. Exophthalmos disapeared, but the tachycardia continued, and never became much lessened. Nine of the twenty-seven cases were cured; five died. Ball is partial to this operation, having made several. One thousand and sixty-seven contributions were made to this subject.

CRETINISM (1800-1903), is a physiologic and mental non-development from infancy due to the congenital absence of thyroid tissue. The subject seldom attains five feet in height. Neck thick, arms and legs short, tongue protruding, with imbecility or idiocy. Myxodema is a disease of adult life due to the absence of thyroid tissue destroyed by disease, or removal by operation. Coitus during intoxication is supposed to be a cause, but this has never been proven. Myxodema may be associated with enlarged thyroid, but that body has been converted into connective tissue as the result of disease with the loss of physiologic thyroidin. There is but one remedy for cretinism or myxodema, and that is the internal administration of thyroid or thymus secretion taken from animals, so long as the subject lives.

HISTORICAL. Fodere, 1800, delivered a discourse on cretinism and the influence of altitude upon it. Du Mirai, 1831, presented his memoirs on cretinism, its cause (natural, incidental and disease), and hereditary influences, and precautions.

Something like seventeen contributions have been made to this subject.

CONCRETIONS (1837-1903). Cause unknown, may be bony or calcareous, single or multiple, and varying in size, shape, consistency and location. They may form upon the surface, or in the body of the gland. More frequently in advanced life.

HISTORICAL. Marjolin, 1837, and Fouraytier, 1841, each recorded a case of bony degeneration of the thyroid gland. Toland observed a bony concretion in the isthmus and right lobe. Bell, 1894, observed an extensive calcareous deposit in an enlarged thyroid gland producing œsophageal obstruction. Something like nine contributions have been made to this subject.

CYSTIC GOITRE (1682-1903). Cysts of the thyroid are among the earlier pathologic conditions described, may be congenital or acquired, they may be single or multiple, or they may coalesce. They may vary in size, shape and location, containing serum of colloid material. They may be slow or rapid in their development, become infected or rupture into the trachea, œsophagus, pleural cavity, or escape externally.

HISTORICAL. Cesvin, 1680, recorded a case of recovery from cystic goitre. Dupeyron de Cheyssiol, 1768, made his contributions on the cure of cystic goitre with powdered egg shells, internally administered. Lane, 1787, reported a cure of a cystic goitre by the use of burnt sponge. Denny, 1825, reported on epidemic of cystic goitre in the vicinity of Pittsburg, Pennsylvania. Bramley, 1838, reported his observations on cystic goitre in the Trans-Himalayan regions. Maclagnan, 1853, made an anlysis of the fluid contained in a cyst of the thyroid. Masterman, 1870, published his notes on cystic goitre in Paraguay. Robinson, 1885, was awarded a gold medal by the University of Durham for his thesis on "Endemic Cystic Goitre." One hundred and eighty-seven contributions have been made to this subject.

ECHINOCOCCUS (1850-1903). Cysts of this kind are frequent, large or small, single or multiple, primary or secondary, usually primary. The parasite is supposed to pass through the trachea or œsophagus.

HISTORICAL. Albers, 1850, was among the first to report this form of cyst in the thyroid, since which time there have been twenty or more contributions to this subject.

BLOOD CYSTS (1829-1903), are rare; due to injury or disease, sudden, slow, or rapid in growth; single or multiple, fixed or movable, with or without fever or dyspnea. Rupture, in any direction, may be fatal.

HISTORICAL. Meissner, 1829, was one of the first to mention a hematoma of the thyroid. Low, 1878, reported a case of goitre with hemorrhagic tendency. Berger and Onimus treated a blood cyst by electricity. Osler, 1891, described a large fibro-cystic goitre, hemorrhage followed by death. Thirty-two contributions have been made to this subject.

ABSCESS (1843-1903). Rare, primary or secondary, single or multple, varying in size, shape and location. May result from injury, infectious disease, direct or indirectly, and involve one or more lobes.

HISTORICAL. Dixon, 1843, described a chronic abscess of the thyroid. Englisch, 1877, described a suppurative thyroiditis. Romain, 1886, reported a case of suppurative thyroiditis following intermittent fever. Muser, 1887, recorded a case of abscess of the thyroid following convalescence of typhoid. There have been sixteen contributions to this subject.

GANGRENE is exceedingly rare and results from injury or infection. Kerns, 1839; Damas, 1898, and Sabatini, 1898, made the only recorded reports.

TUBERCULOSIS (1847-1903), is rare and usually primary, unless in pulmonary tuberculosis, when gland is involved about 12 per cent. in cases of pulmonary tuberculosis. The disease originates in the connective tissue between the vesicles. Albers, 1847; Qinlan, 1874, and Rolleston, 1898, reported cases.

SYPHILIS (1887-1903). Rare, always appearing in the form of gumma. May be congenital or acquired, involving gland or capsule or both. Not much known about syphilitic remedies or thyroid gummata. Clark, 1897, recorded a case of gummata of the isthmus, ulceration, œdema of the larynx, laryngotracheotomy; recovery. There are but three or four cases of gummata of the thyroid reported.

CARCINOMATA (1844-1903) is frequent, primary or secondary, usually primary, involving one or all lobes. May be hard or cystic.

HISTORICAL. Hawkins, 1844, recorded a case of carcinomata of the thyroid. Demme, 1880, mentioned a medullary carcinoma of the thyroid. About forty contributions have been made to this subject.

SARCOMATA (1838-1903) are frequent and of many variations, primary or secondary, usually primary, cystic or solid, single or multiple, fixed or movable, and usually appear in early life regardless of sex or any known cause.

HISTORICAL. Doloris, 1876, recorded a case of primary sarcoma of the thyroid. Something like fifty contributions have been made to this subject.

EXPERIMENTAL (1884-1903)—HISTORICAL. Tizzoni, 1884, experimented upon the thyroid to determine its physiopathology. Schwartz, 1888, removed the thyroid in animals to determine the effects of its extirpation. Neumeister, 1888, made a series of experiments pertaining to the histology and regeneration of the thyroid gland. Lannelongue, 1890, transplanted segments of the thyroid. Mossu, 1892, experimented with the thyroid gland to observe its functions and influence upon Cretinism. There are about forty contributions to this subject.

MEDICAL TREATMENT—HISTORICAL. Monat, 1857, wrote a very interesting article on the use of mercuric iodid in combination with the rays of the sun for the cure of goitre. Frodsham, 1860, used mercury externally for goitre, while O'Connor during the same year successfully treated goitre by large doses of potassium and liquor potassæ. Guptill, 1874, treated exophthalmic goitre successfully with iodo-bromide of calcium. Woakes, 1879, employed fluoric acid in the treatment of goitre. Something like eighty-seven contributions have been made to this subject.

ELECTRICITY. Many varieties of the electrical current have been employed in the treatment of goitre.

HISTORICAL. Schuh, 1860, applied galvanism and Wahltuch, 1871, successfully treated a case of bronchocele by electrolysis, and the subcutaneous injection of iodine. Meyer, 1874, applied galvanism to the sympatheticus in a case of exophthalmic goitre. Erienmeyer, 1877, made extensive experiments with galvanism, applied to the sympatheticus in exophthalmic goitre. Bordier, 1894, reported his observations on the use of Faradism in the treatment of exophthalmic goitre.

THYROIDOTOMY includes punctures, and incisions of any character in the normal or pathologic gland for any purpose.

a. The Seton was first employed by Moreau, especially in cystic goitre, since which time many such cases have been cured by this method. The Seton should not be introduced into a sac containing blood. There are certain cases of cystic goitre that can be cured by the use of the Seton, but the prolonged treatment, and ugly scar are so objectionable that other methods are selected.

HISTORICAL. Quadri, 1819, mentioned a new method of treating bronchocele by Seton. Lyford, 1827, successfully treated goitre by Seton. Appley, 1874, cured a case of cystic goitre by Seton.

b. Injection (1740-1903). Many kinds of solutions have been injected into both solid and cystic thyroid. Iodine, zinc chloride, iodoform, alcohol, ergot and nitrate of silver are among the most popular ones used. Iodine for the hypertrophic, follicular and recently developed goitres. Such subjects are especially susceptible to iodine only. Zinc, iodoform, alcohol and other astringents are indicated in the soft goitre.

HISTORICAL. Lauth, 1740, injected iodine into an enlarged thyroid gland, after which time this remedy injected became very popular, as many cases were cured. Mears, 1873, injected perchloride of iron into a cystic goitre. Coghill, 1877, and Palmer, 1878, successfully treated cystic goitre by injecting ergotine into the sac. Folier, 1880, successfully treated goitre by injecting alcohol into the tumor. Grunmach, 1882, and Dumont, 1884, each treated goitre by injecting arsenic into the new growth. Cameron, 1884, treated goitre successfully by injection of hydrochloric acid, and Ghosal, 1897, succeeded in curing a case of goitre by this method. Beau, 1884, and Marquet, 1894, each treated goitre by injection of iodoform. Haven, 1886, successfully treated goitre by carbolic acid. O'Reilly, 1892, treated goitre by iodine, mercury and potash injections.

Ballet and Euriquez, 1894; Sene, 1895, and Cotrelle, 1896, each treated goitre by injecting thyroid extract into the gland.

c. Cautery. Both thermic and chemical cauterants have been employed in the treatment of goitre. Metals of various kinds, varying in degree of heat, have been applied to the skin, overlying the thyroid, and inserted into the body of the gland, with slight benefit.

HISTORICAL. Bonnet, 1850, employed the red hot iron with "apparent" success. Larghi, 1856, and again in 1873, used the cautery in goitre.

d. Chemical Cautery. Caustics were suggested and used by Celsus. They were used in the form of dagger crystals which were thrust into and allowed to remain in the cyst or tumor. Many successes were obtained, but this treatment has been displaced by better and more scientific methods.

e. Division and Resection of Isthmus. This, as the name implies, is to relieve any tension that might have resulted from pressure due to abnormal development of one or both lateral lobes.

HISTORICAL. Holthouse, 1874, was the first to resect the isthmus. Gibbs, 1875, was the first to simply divide the isthmus. Twenty resections with three deaths were tabulated by Tillaux, 1883. The operation should not be done now that more certain and beneficial methods have been discovered. Several hundred contributions have been made to this subject.

THYROIDECTOMY (1778-1903) may be partial or complete removal of one or all lobes. Complete removal should not be done except when malignant. Partial thyroidectomy should be the term applied to operations involving removal of thyroid tissue. It has become the operation of choice for all forms of goitre, including exophthalmic goitre. The results are better in all forms, and the general mortality less (5-7 per cent). This five or seven per cent. mortality is probably found (at least the greater proportion) in thyroidectomy for exophthalmic goitre, the mortality being higher in this than any other form of goitre. Kocher, Doyon and Berry give thyroidectomy preference over all other operations. Liebrecht reports the following table:

	No. Cases.	Recoveries.	Deaths.	Mortality.
Before 1851....	54	35	17	31.48%
1851-1876.....	138	101	27	20.30%
1877-1882.....	164	140	24	14.63%
1882-1898.....	6103	5927	176	2.88%

1894-1901, Berry's 100 operations, 1 death.

Freytag, 1778, extirpated a large thyroid gland. Giraud, 1792, removed a part of the thyroid for new growth. Green, 1829, removed the right thyroid body and Liston, 1830, removed an enlarged isthmus. Dupuytren, 1830, reported a case of fibro-cellular tumor of the left thyroid lobe in an infant. Extirpation, ligating pedicle, death eighteen hours after. Otis, 1854, successfully removed an enlarged isthmus. Chassaignac, 1861, made a complete ablation of the thyroid gland by the method of linear destruction. Parsons, 1862, removed an osseous tumor from the thyroid gland.

PERSONAL OPERATIONS.

No. 1. Male, 27 years, white, parenchymatous goitre, right side, eight years duration, associated with epilepsy. Removed 5½ ounces, leaving small amount of the base. Recovery.

No. 2. Female, 45 years, white; cyst, right side, size of goose egg for several years. Removed all but a small portion of right gland. Recovery.

No. 3. Female, white, 28 years; parenchymatous goitre, right side for 7 years. Removed 4½ ounces, leaving but little glandular tissue. Recovery.

No. 4. Female, 22 years, white, right side; parenchymatous exophthalmic goitre. Several years' duration. Tachycardia. Removal, 1897, leaving small portion of gland. Recovery. 1903 stump grew size of hen's egg, and symptoms returned. Removal complete. Small left gland undisturbed. Recovery.

No. 5. Male, 30 years, white; cystic goitre, 3 years, left side behind manubrium of sternum. Severe pressure upon trachea. Immediate operation imperative. Removal of 6 ounces fluid, sac and nearly all of left lobe, right lobe left undisturbed. Recovery.

No. 6. Female, 27, white; exophthalmic parenchymatous goitre, left side, 7 years, tachycardia pronounced. Removed 4 ounces parenchymatous tissue, leaving but a small portion of the left gland. There was a normal gland upon the right side. Recovery.

No. 7. Female, 27 years, white; exophthalmic goitre, left side, for several years. November, 1902 (2 cysts, each of the size of a guinea egg), removed. This was the most severe case of exophthalmos of all operated upon. Recovery and great improvement.

No. 8. Female, 14 years, white; parenchymatous goitre, right side, three years' duration. Removed 3½ ounces glandular tissue. Recovery. Improvement slight. Continue to have severe nervous symptoms.

No. 9. Female, 45 years, white, married, seven children; exophthalmic goitre for 20 years; severe tachycardia, and nervousness. Removed six ounces of parenchymatous tissue from right lobe. One 4-ounce cyst (left subclavicular), and two small cysts on left side. Recovery most rapid with marked improvement.

No. 10. Female, 27 years, white, married, one child 4 years old. Parenchymatous goitre right side, four years' duration. No tachycardia or exophthalmos. Pressure symptoms aggravated. September, 1903, chloroform, removed five ounces of glandular tissue, leaving a small portion, as no other thyroid tissue could be found. Recovery uneventful.

Personal Operations—Resume. Ten subjects, 8 females, 2 males, 10 recoveries, 5 parenchymatous, 4 exophthalmic, 2 cysts, 3 solid and cysts, 7 single, 3 multiple, 6 right side, 3 left side, 1 both sides. There have been 616 contributions to this subject.

EXOTHYROPEXY (1894-1903). Jaboulay, 1892, believed if the gland be luxated after the overlying tissues had been divided that atrophy of the gland would ensue to such an extent that beneficial results would be obtained. He and Berard, with others of his colleagues, about Lyons, did many operations as follows: Jaboulay, 35; Poucet, 15; Blanc, 3; Guillemont, 3; Pollasson, 5; Rocket, Albertin, Buchannan and Hartman, each 1; total 65. Mortality, 4 deaths from pneumonia; 2 septic infection, with hemorrhage and acute exophthalmos. Some greatly benefited, others not. In a few cases it may be necessary to remove the manubrium of the sternum that the gland may be luxated. It is probably an operation best suited to enlarged thyroid in the very old or debilitated, especially where general surgical anesthesia is contraindicated and cocaine indicated. About fifteen contributions have been made to this subject.

LIGATION OF THYROID ARTERIES (1779-1903)—HISTORICAL. Moreau thought that ligation of the arteries supplying the gland would cause atrophy. Acting upon this suggestion he did so at the Hotel Dieu, 1779. Blizard operated in this way, resulting in slough, secondary hemorrhage and death. Brodie disapproved the theory and the operation became less popular thereafter. Rydyger, 1889, collected 16 such operations, and Gunther, 21, with 2 cures and 3 deaths. Rehn, gives a mortality of 28.6 per cent.; 2.4 per cent. cured and 50 per cent. benefited. Balacesu says this method was the first operation for goitre to be abandoned, because of a high mortality, and in nearly all cases the diseases recovered in a few months after operation. Secondly, its execution was difficult in large growths. Kocher, Kopp and Rehn have recorded cases in which this operation was followed by tetany. Coates, 1819, successfully ligated the superior thyroid artery for bronchocele. Langenbeck, 1823, tied these arteries, and Wells, 1832, reported a deep seated tumor under the angle of the jaw complicated with bronchocele in which he ligated the superior thyroid artery. There have been thirty-nine contributions to this subject.

COMPRESSION (1817-1903)—HISTORICAL. Holbrook, 1817, treated goitre by this method which has since been practiced with more or less benefit. It is but a few cases that are amenable to pressure. It would seem that any degree of pressure to be effectual would at the same time cause serious pressure upon the trachea, or blood vessels or all. It cannot be recommended as a rational method in the treatment of any thyroid affection; however, Brunelli, 1861, and Clarke, 1890, each succeeded in curing a case of goitre by compression. Something like ten contributions have been made to this subject.

TRACHEOTOMY (1840-1903). This operation is only suggested for palliation, and indicated in cases where the pressure upon the trachea is causing serious trouble. It is done in emergencies, and only to give relief until more radical measures can be instituted. There have been many such operations performed for diseases of the thyroid. Twenty contributions have been made to this subject.

SURGERY OF THE THYROID—CONCLUSIONS.

1. The thyroid is oftener abnormal than normal, in size, shape, and number of lobes, and accessory lobes more frequently upon the left side.
2. The physiological function of the thyroid, and its secretion, and relation to other glands is not understood.
3. There may be but one lobe, and it may be situated anywhere in the anterior, lateral, or posterior portion of the neck, or it may be intrathoracic, subclavicular, or post scapular.
4. It is the most constant of all the glands in animal life, and vertebrates are subject to the same laws concerning it.
5. Absence of the thyroid at birth results in Cretinism, and its destruction by disease, or otherwise in adult life induces myxodema.
6. Parenchymatous goitre, cause not known.
7. May develop in fetal infant child or adult life.
8. All animal life is subject to it.
9. Exophthalmic goitre cause not known. May or may not have protrusion of eye-balls.
10. Lesions of restiform body in rabbits and dogs, and probably all other animals will induce exophthalmos and tachycardia., also tremor, polyuria, glycosuria and salivation.
11. Medicaments of no avail, except to palliate. Surgery offers the only means of relief.
12. Thyroidectomy is operation of choice, done more quickly with less mortality, and better results.
13. Concretions may be osseous or calcareous.
14. Cysts should be removed by thyroidectomy, whether they contain blood serum or pus of parasitic, benign or malignant origin.
15. Gangrenous and tubercular thyroid tissue should be freely excised.
16. Syphilitic gummata may be congenital or acquired, and should be subjected to syphilitic remedies to which they will succumb.

17. Transplanted segments of thyroid tissue will, more or less, maintain life.

18. Electricity in any shape is not only useless, but very detrimental in that it causes the formation of adhesions, which greatly interfere with subsequent surgical operations.

19. The use of the Seton, and incision into the thyroid is seldom indicated, except for the removal of concretions, or foreign bodies.

20. Injections of crystals, solutions, or cautery of any character, into the thyroid for any purpose, should not be tolerated. Like local applications of any character should be condemned and relegated.

21. Division or resection of the thyroid isthmus does not cure. It has no place in thyroid surgery, and should become obsolete.

22. Partial thyroidectomy is the proper term as the entire gland is seldom removed.

23. Chloroform for general anesthesia, and the use of cocaine for local anesthesia are the most desirable.

24. The mortality is less than one per cent. in the general application of thyroidectomy. It is the operation of choice.

25. All thyroid tissue should not be removed unless malignant.

26. Regeneration of thyroid tissue, that will secrete thyroidin, is just as impossible as the regeneration of a finger.

27. Death from hemorrhage in thyroidectomy need not occur, as blood vessels of any size or location may be closed by ligature or forceps.

28. Ligation of the thyroid arteries is ineffectual and obsolete.

29. Compression of goitre sufficient to be beneficial would occlude the trachea, and larger blood vessels of the neck.

30. Tracheotomy is indicated when the goitre pressure upon the trachea or blood vessels produces alarming effects, and then only to palliate until thyroidectomy can be made.

THE FUTURE OF THE PRACTICE OF MEDICINE IN THE UNITED STATES.

BY L. G. GUIBERT DE LA MACHE, B. A., M. D., COLUMBUS, O.

(Continued from the October Number.)

The president of the American Medical Association in his address last May at New Orleans, has shown with a hand worthy of a master, what are the greatest defects of the present organization of medical colleges. In the remaining few states in which a state board examination is not required, a medical college is purely and simply a machine producing dollars for the benefit of a few pockets. Scientific preparation of the student is only a secondary consideration to which never a member of the board of trustees or of the faculty will allude. "Money, more money and always money," such can be the motto in many instances of the medical institutions of these states. In those parts of the country where a state board of examination is obligatory the situation is somewhat better, for the fear of sending before the board, unprepared men, is a stimulus for the faculty and, *ipso facto*, a guarantee for the public.

One of the things absolutely necessary in each state of the Union is a state medical university with large clinics, in the hands of men who are professors, who know what pedagogy means, who teach methodically, and are not merely physicians. It is sometimes pitiful to see men, supposed to be lecturers, beginning ten sentences in a period of ten minutes, and not being able to terminate one correctly; bivalves, reminding by the manipulation of their jaws, the gaping of an oyster and imparting as much knowledge as the oyster can, but not a particle more. It is ridiculous to see some of these polichinellos, after ten years' teaching of the same branch, unable to speak three minutes without being obliged to refer to their book, *asinorum vade mecum*. When a position of professor in a medical institution is to be given, only merit ought to be considered and influence ought to count entirely for nothing. The cliques must disappear and will disappear when physicians will have realized that to be divided is to be weak.

All professors of a state medical institution will receive enough salary to be almost independent. They will not be obliged to hunt clients and will have more time for individual work and the preparation of their lectures. They will not be obliged to remain popular among students on the condition of obtaining from them the least amount of work possible. If they wish to raise the standard of their special branch, they will be able to do it without intervention.

The state medical examination is the only safeguard at present and before long its requirements will be harder. Four years with a seven months' course are not sufficient to master thoroughly all branches of the science of medicine, with many illustrations and with clinical experience. An entire year consecrated to exclusive hospital work is of first necessity. A physician ought to have had charge of cases, to have been able to observe for himself and by himself before leaving the college and his first patients ought not to be his first experiments. In Europe the medical course is from six to seven years and lasts nine months each year—one of these years being entirely clinical.

That the medical institutions are too numerous in the United States has been said and said again. Two-thirds of them can disappear and yet enough will remain. More students will matriculate in each of these remaining schools, located in the largest cities of every state where a great quantity of clinical material can be obtained, and it will be a benefit to the student and even to the teacher, who will then have the stimulus of speaking before full benches.

Many of these institutions being then state institutions and independent as to the financiary question, will have the right of speaking to their students of medical ethics. They will teach them to respect and admire the great names of the history of medicine, they will have a special gallery for the pictures of these famous men. They will inculcate in the young physicians the dignity of their profession and they will be able to tell them that there is no more reason why "Doctor" is amputated to Doc, if upon "Reverend" the same operation is not performed, giving Re. or Rev. for result. They will tell them to be loyal to the alma mater; yes but they will make them understand that back of this mater is a greater one, to which they must devote themselves entirely—*Science.* Their students will be more ready for the battles of life. Being prepared for the thorns as well as for the roses, they will know better when they will begin the practice of medicine that with their strong teeth, they must first eat the hide of the steer and that if they are energetic, and work and work, *labor ipse voluptas et omnia vincit,* they will have later on, the more succulent parts of the animal. Unprofessional, they will not be, feeling that a great success is not the whole of a medical life, that if they work faithfully and for humanity, save enough for the fee to Charon, the beggar, they will be able to enter, through the Styx river, the kingdom of shadows and take their due place among the benefactors of all ages.

To obtain the following requirements—First, the state board examination for all candidates having the degree of B. A. or B. S.; second, a requirement of a degree for entrance to medical colleges; third, a course of five years, with nine months each year, one year entirely for clinical work; fourth, a limit to the number of colleges—existence in every state of at least one medical institution; fifth, reciprocity;—will be an easy matter when the office of secretary of public instruction will be created at Washington. Such an office would be the solution of this intricate problem, the cutting of this new Gordion knot—to rise, to unify, to equalize the classical and medical education. It would be the vigilant eye of the government, controlling all the medical mechanism, breaking down the fences built and fortified by the medical boards of the Union, giving us finally this reciprocity pursued, in vain, for some years, as a wild chimera.

These accomplished reforms will have for immediate result that the profession, strong in the whole and individual strength of its members, putting under foot "*cette folle rivalite*" sometimes existing; putting in practice the "sursum corda"; working hand in hand, intellectually, socially; politically in the lead; will be able to pursue to the extreme unprofessionalism and abortionism, to force quackery to the wall and be powerful enough to sweep to the gutter the odiferous carcas of its members.

Lawyers and politicians will have then a harder time than now to defeat good medical laws, for then every physician will have his sphere of influence and each state medical association well organized will present a front solid like a rock, against which the attacks of its enemies will be powerless and have the effect of waves in fury breaking themselves against a cliff, licking, because they cannot bite.

And in some twenty years from now in some metropolis of the American world the annual meeting of the Medical Association will take place. There will come from the Pacific, from the Atlantic, from the North, from the South, men who will have made of the practice of medicine, really the noblest, the grandest of all the professions.

Turning back for an instant to look at the distance run over on the road of progress, their superiority recognized all over the world, their rich laboratories their splendid universities the center of scientific researches and discoveries, Europe repaid each day with huge interest for what she lent us, all the medical machinery working a l'unison in the name of science and humanity, some of their members savants enough for immortality, the last requiem having been sung on the last of quacks, in a just moment of pride of the work accomplished for their profession and patria their heart beating a little faster, they will be able to say one to the other: I love my village better than thy village, I love my city better than thy city, I love my state better than thy state, but I love my country more than all.

Dr. E. E. Levers of Spring Valley, Wyo., has sold his business to Dr. E. G. Denison and formed a partnership with Dr. J. L. Wicks at Evanston, Wyo. Dr. Levers is now a state senator. In addition to his successful professional career he has a bright political future.

Society and Association Proceedings.

COLUMBUS ACADEMY OF MEDICINE.

Regular Meeting November 16, 1903.

SYMPOSIUM ON PNEUMOHIA.

Etiology and Pathology, bv Dr. D. N. Kinsman. The Doctor confined his remarks to croupous pneumonia and held that primarily there was only one cause and that was due to infection from Frankel's diplococcus, sometimes called pneumococcus. This bacterium, he claimed, was found in the mouths of people and occasionally in the air passages and blood. This form of pneumonia is epidemic endemic, and contagious under some conditions. Among the predisposing causes he mentioned sex, age, alcoholism traumatism of chest and cold. The latter lowered the vitality to a point where the resistance of the body was not sufficient to prevent colonization and multiplication of diplococcus. He outlined the pathological conditions as follows: First, engorgement of blood in the capillaries. Second, separation or loosening of epithelial cells in the alveoli. Third, breaking of capillary vessels. Fourth, hemorrhage into four upturned capillaris air alveoli, causing red hepatization. Fifth, migration of leukocytes, causing gray hepatization. Sixth, softening of the exudates through autolysis and phagocytosis. Seventh, resolution and repair. Eighth, when the latter process does not take place there follows purulent softening. Ninth, where the nutrition is cut off from large areas of tissue, gangrene follows. In some cases there is delayed resolution, due to lack of active phagocytosis and autolysis.

Physical Signs of Pneumonia, by Dr. H. W. Whitaker. He briefly outlined the general symptoms as follows: Hurried respiration; change in circulation, as manifested by the frequent pulse and depressed heart action; pain in chest usually preceded by a chill; position of patient, usually semi prone; facial expression; nervous symptoms such as convulsions in children, delirium in adults, cough and expectoration. The physical signs were those determined by palpation and percusion. He spoke of the physical signs being obscure in central and deep-seated pneumonia, therefore, the necessity of a very careful and thorough physical examination.

NERVOUS SYMPTOMS AND SEQUELA IN PNEUMONIA, by Dr. W. D. Deuschle. He referred particularly to meningitis as a complication in pneumonia, occurring in about 8 per cent. of fatal cases. He also spoke of meningeal trouble being produced by embolism due to endocarditis, which is not an infrequent complication. He held that pneumonia was an indirect cause of epilepsy in some cases and related the history of a man who had been suffering with petit-mal following an attack of some eight years ago.

TREATMENT OF PNEUMONIA, by Dr. T. W. Rankin. The Doctor discussed treatment in a general way and pointed out the difficulty of outlining a special course for all cases. He maintained that there is no specific medication for pneumonia, but that each case is one unto itself and should be treated largely symptomatically. There is one class of cases in which the virulence of the attack is so grave that the disease leads to death in spite of anything that can be done. Another class of cases, with even larger lung involvement, tended to recovery without any particular medication. He claimed that it is the middle class, between the virulent and simpler types that require the most urgent and intelligent efforts on the part of the physician.

At the onset, in patients of full habit and vigorous physical condition he believed in venesection and the administration of arterial sedatives. The second stage should be treated smyptomatically. Careful attention should be given the heart, kidneys and other emunctories. The patient should have a liberal and nutritive diet. Locally an ice bag to the chest often gives relief. If severe pain is present and cannot be controlled by local remedies morphia should be given hypodermically. As heart stimulants he believes in alcohol, strychnia, digitalis, atropin and under some conditions oxygen ether and ammonia salts. For insomnia and delirium he considered the hypodermic administration of morphia a valuable remedy. In the third stage he would give chloride of ammonia with the addition of morphia if necessary and tonics.

In discussing the papers, Dr. Kinsman stated that he doubted the close relation between pneumonia and some of the nervous symptoms mentioned by Dr. Deuschle. In speaking of cardiac symptoms he emphasized the necessity of studying the heart sounds for unfavorable conditions. When the second sound of the heart becomes weak and perhaps indistinct it meant failure and the prognosis is always grave. In his judgement the right heart felt the effects of the back pressure first and therefore showed signs of distress early.

AMENDMEHT TO THE CONSTITUTION.

The following amendment to the Constitution was unanimously adopted:

The annual dues shall be $3.00, and shall be payable January 1 of each year. Any member who shall fail to pay his annual dues by April 1, shall be held as suspended, without action on the part of the Academy. A member suspended for non-payment of dues shall be dropped from the roll of membership after one year, and shall on payment of all indebtedness, be restored to full membership in accordance with Section 2, Article IV, of the By-Laws of this Academy.

The following physicians were elected to membership: C. T. Elder, G. H. Shauweker, E. H. Moore, E. M. Parrett.

Regular Meeting December 7, 1903.

President, Dr. F. W. Blake, in the Chair.

Dr. F. F. Lawrence presented some pathological specimens of Exfoliated Endometria in cases of membranous dysmenorrhea and gave history of some. The Doctor is inclined to the opinion, based upon a number of cases that have come under his observation, that the diseased endometrium is a secondary one due to disturbances connected with the tubes and ovaries

Another interesting clinical point was suggested in the etiology of these cases. In each case there had been an attack of exanthema. One followed an attack of smallpox, another of scarlet fever and the third one an eruptive disease, the diagnosis of which was not clear. The Doctor is satisfied from an extended experience that such cases of endometritis cannot be cured by curetting and suggests an early removal of the tubes and ovaries if found diseased.

Dr. Geo. Stockton read a report on the prevalence of tuberculosis in the State Hospitals in Ohio, especially at the Columbus Hospital. The statements as to the increase of tuberculosis in certain wards of the institution are confirmatory of the contagiousness of tuberculosis. Twenty-six and a half per cent. of the deaths during the last year were due to consumption. His report also showed the material improvement made by patients subjected to out-door environments, such as camp life. Three tents were provided in the grove west of the State Hospital, in which tubercular patients were cared for from May 10 to November 5. The results secured were promising. There were many other practical and interesting points in the paper. A synopsis of this paper will be published in our next issue. It was a part of his annual report to the Board of Trustees, in which he emphasizes the necessity of better facilities for handling tubercular patients.

Dr. Clark gave a very interesting lecture on "Some Pathological Conditions of the Eye, Illustrated by the Projection Lantern." The slides were prepared from specimens of diseased eyes representing various pathological conditions.

Dr. J. S. Carlton was elected to membership in the Academy.

The Executive Committee was authorized to provide a luncheon for the annual meeting, December 21.

OHIO VALLEY MEDICAL ASSOCIATION.

The fifth annual meeting of this association was held in Evansville, Ind., November 12 and 13, under the presidency of Dr. Benjamin L. W. Floyd, of that city, and was a success in every particular. Organized at Morganfield, Ky., in 1898, as the Morganfield District Society, this association has experienced a remarkable growth and now numbers something over 200 members. During the two days' session just closed over

30 papers on scientific subjects were read and discussed. The social session was held at Woodmere (Southern Indiana State Hospital).

Dr. J. Rilus Eastman, of Indianapolis, delivered the annual address, his subject being the "History of Medicine in the Ohio Vallèy." Dr. Eastman is a fluent speaker and held the undivided attention of his audience for over an hour. Refreshments wre served and a dance ended up the festivities. Officers for the year were elected as follows:: Dr. A. M. Hayden, President, Evansville, Ind.; Dr. J. W. Stover, First Vicepresident, Henderson, Ky.; Dr. Claude T. Hendershot, Second Vicepresident, Cannelton, Ind.; Dr. Aug. Schacner Third Vicepresident, Louisville, Ky.; Dr. A. J. Luther, Secretary and Treasurer, Henderson, Ky. Any physician in Kentucky, Indiana, Ohio or Illinois is eligible to membership if in good standing in his county society. The dues are $2 per year. Next meeting will be held in Evansville, Ind., the second Wednesday and Thursday of November, 1904.

MUSKINGUM COUNTY MEDICAL SOCIETY.

The one hundred and sixteenth monthly meeting of the Muskingum County Medical Society, was held on October 14, with President Hanna in the chair. Those present were Drs. Hanna, Sellars, Warburton, Yost, Lenhart, Templeton, Hill, Lyons, Baron, Allen and Sealover. Communications from the American Congress on Tuberculosis were read, and as they wanted all medical societies represented at their meeting on April 4, 5 and 6, 1905, in Washington, D. C., Dr. Lenhart was elected a delegate.

Dr. Yost read a paper on "Anesthesia," and Dr. Lenhart read a paper on "The Treatment of Certain Complications of Typhoid Fever." The discussion of Dr. Yost's paper was opened by Dr. Warburton. Drs. Templeton, Lenhart and Hanna continued the discussion. The discussion of Dr. Lenhart's paper was postponed until the next meeting.—Dr. W. F. Sealover, Secretary and Treasurer.

THE COLUMBUS MEDICAL JOURNAL.

A Monthly Magazine of Medicine and Surgery.

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Communications relating to the editorial department should be addressed to Dr. J. U. Barnhill 248 East State Street; those relating to the business management should be addressed to Dr. W. J. Means, 715 North High Street.

DECEMBER, 1903.

Editorial.

PHYSIOLOGIC SALT SOLUTION.

Saline infusion has not only almost entirely displaced blood transfusion, but has been found to have a much wider sphere of usefulness. The latter was abandoned because it was found that foreign blood, "whether transfused directly or after defibrination, is liable to contain a quantity of fibrin-ferment, sufficient to cause intravascular clotting; and also because the serum of one animal may be toxic to another or cause a destruction of its blood corpuscles." As a substitute for blood, the normal salt solution of the strength of 0.9 per cent. was first used in cases of shock, or of loss of blood from severe hemorrhage. By experimentation it is found that by thus augmenting the volume of the circulating liquid the "red corpuscles are made more efficient as oxygen carriers, partly owing to the fact that the bulk and velocity of the circulation are increased, and partly because the corpuscles are kept from stagnation in the capillary areas." So generally useful is it found to be in such conditions, that it is frequently (almost daily) employed in hospitals, not only in shock and severe hemorrhages, but in various other conditions, both medical and surgical. In a valuable paper upon this subject, Dr. J. B. Morgan (*Atlanta Journal-Record*), has pointed out many advantages in the use of these saline solutions. In "severe hemorrhage he regards it as our sheet-anchor and for shock, which next to sepsis, is the cause of the greatest fatality following major operations, he regards it as the most reliable agent, not only in relieving, but of preventing this condition, by the frequent use of it, before or during the operation, when shock seems a probability. He points out that it may be used to great advantage in severe cases of lobar pneumonia, in uremia, in infectious diseases, septic conditions and severe anemia. He says the "results in cases reported are excellent. In addition to improved heart action and arterial pressure, the red blood corpuscles multiply more rapidly and the circulating poison is diluted, diminished and frequently eliminated, especially through the kidneys." He further says that in cholera, dysentery, severe diarrhea, or in any case in which there is a decidedly diminished quantity of water in the blood, a liberal use of normal salt solution is indicated, and without its use the resources of the physician will not have been exhausted.

In a recent editorial on this subject, the *Albany Medical Annals*, says that "Among the therapeutic measures of real value, the operation of saline infusion takes a leading place," and quotes, from Dr. Marshall, the report of a severe case of typhoid fever in which saline infusion was used to advantage to combat several critical periods. The patient's life seems to have been saved by this treatment. In the third week, according to this report, "there was a severe rigor; a temperature of 105 degrees, heart sounds weak, pulse almost imperceptible at the wrist. The ordinary cardiac stimulants having failed, twenty ounces of normal salt solution were injected in the areolar tissue, beneath the right breast. This was followed by improvement in the pulse and the patient became restful. On the next day the rigor and decline of pulse were again noted and the repetition of the hypodermoclysis was followed by five days of comfort. There then ensued a profuse hemorrhage from the bowels, followed by profound collapse, with a pulse rate of 140. Twenty-five ounces were again injected, with benefit, the temperature touching the normal point daily for two weeks. There was then a relapse, followed in ten days by rigor, pulse rate of 160 and temperature of 106.2 degrees. Thirty ounces of fluid were injected. On the two succeeding days the stools were tinged with blood, and for a week the condition of the patient was critical, with delirium and a soft, dicrotic pulse ranging from 130 to 160. Improvement was gradual, interrupted by another relapse, after which recovery took place. The general treatment throughout was fresh chlorine water and other intestinal antiseptics, sulphuric acid and opium to restrain the diarrhea, and, when hemorrhage occurred, chloride of calcium in twenty grain doses."

Doubtless the saline infusion in the treatment of suitable medical cases will grow in favor and become a well-established procedure with the general practitioner as it is now with the surgeon.

RECIPROCITY IN MEDICAL LICENSES.

The State Board of Medical Registration and Examination of Ohio adopted the following resolution at its regular meeting on October 6, 1903:

"The Ohio State Board of Medical Registration and Examination will dispense with the examination of a candidate presenting a license from another State Board, or from the Board of Examiners of the District of Columbia, issued after an examination upon which a general average of 75 per cent. was obtained, upon payment of the fee, fifty dollars, required by law; provided the applicant was, at the time of such examination, the holder of a diploma from a medical college recognized as in good standing by the State Board of Ohio; and provided that the applicant has complied in all other particulars with the laws of Ohio governing the practice of medicine and surgery, and the rules of the Ohio State Board of Medical Registration and Examination; and provided that the State Board issuing such license will in like manner accept the license issued by the Ohio Board.

This is a step in the right direction. At the present time there are only four states, namely: Indiana, Illinois, Wisconsin and Michigan, recognized as coming under the provisions of the above resolution. Doubtless, others will soon be added to the list. Some fear has been expressed that the standard of entrance to medical colleges would not be uniform in the various states, entering into reciprocity, and that, therefore, students might be driven out of one state into another to receive their education, upon the completion of which they would return to the state of former residence and engage in practice. Thus, in Ohio, the entrance requirement includes two years' study in Latin. As this is a frequently neglected study, especially by the students coming from rural districts, conditions and failures in it are numerous. If any state should have a lower requirement in Latin, or should see fit to substitute a modern language for the Latin, many students might be induced to go to colleges in other states to receive their medical education, and under the provision of reciprocity, return to Ohio to practice. But as we understand the resolution adopted by the Ohio Board, such students would not be recognized as fulfilling the requirements of the above resolution, viz.: in that they have not "complied in all other particulars with the laws of Ohio, governing the practice of medicine and surgery, and the rules of the Ohio State Board of Medical Registration and Examination." If this be the construction which the Ohio Board places upon this provision, as we understand it is, there need be no fear that students will be driven out of Ohio for their education, and return here to practice.

It will be noted, also, that no provision is made for reciprocity in regard to physicians who were regular practitioners at the time of the passage of the medical laws; that is, those who have not passed an examination in order to secure licenses to practice. It would seem that some provision might be made, hereby, for practitioners who can present satisfactory evidence of a good literary education, and who also have graduated from recognized medical colleges, could be given the privilege of registering in other states, without passing an examination.

SEWAGE DISPOSAL.

The State Board of Health of Ohio has made it unlawful for municipalities to empty sewers into running streams. This is a most commendable action on the part of Board. A few cities have already provided for sewage disposal. Columbus, by an overwhelming majority, voted the expenditure of $1,200,000 for a sewage disposal plant, and steps will be taken at once to construct the necessary buildings and equipment.

The plant at Mansfield, Ohio, is in full operation and is serving as a valuable model for the construction of other plants in the west. It has a capacity of 1,000,000 gallons per day, the largest of its kind in the state. It is a bacterial filter with a septic tank as an auxiliary. The filters, as described by the representative of the firm that built the tank, are in the form of a great circle, covering 1¼ acres. It is said that the filters which will be provided for Columbus, will be the direct sand filters, combining septic treatment with sand filtration, and that these filters can be so constructed as to avoid all offensive odors.

The plant is to be constructed about three miles below the city and will be one of the greatest improvements ever made to our municipal housekeeping.

CLOSING NUMBER.

With this, the closing issue of Volume XXVII, we desire to record our appreciation of the cordial support which the JOURNAL has received during the past year from contributors, subscribers and advertising patrons, and to solicit their co-operation for the coming year in making the COLUMBUS MEDICAL JOURNAL more useful to them and to the profession generally than ever before. With their aid we hope to increase the usefulness of the JOURNAL: to make it a home journal of especial interest to the general practitioner; one in which his own experiences, as well as those of his neighboring specialist, shall find frequent expression, one containing brief abstracts of current medical literature from other medical journals and faithfully chronicling the proceedings of home societies, with information for guidance and news and views enough to give it local coloring and character; a journal worthily representing the best ethical principles of the profession, constantly stimulating the local profession to authorship, and thus contributing to the general fund of recorded medical knowledge.

During the year just closing, we have published fifty-one original articles and many abstracts. We shall hope to publish fully as many, or more, if space will permit, during the coming year. We earnestly solicit original contributions from the profession. These contributions, though ever so brief, will be of interest to other physicians. They may be in the form of prescriptions, brief notes, reports of cases, comments or suggestions on scientific or ethical questions, or more lengthy original papers. Every physician could and should contribute to his local journal something that would be of value to the profession, and the effort required to contribute it would be a benefit to him, for it is as true here as elsewhere that "it is more blessed to give than to receive."

Our columns are open to all who furnish contributions for the good of the profession and the advancement of scientific medicine. Let the presence of medical journals in your office be a constant reminder of an obligation to contribute, as you can, the results of your experience for the benefit of others.

To all of our patrons and readers we extend, in this index number, our best wishes for a merry Christmas and a happy New Year.

Obituary.

Dr. Granville Moody White, who practiced in this city for 31 years died October 17, 1903. He was born in Franklin county in 1835, educated in the public schools, at Antioch College and Starling Medical College. He was graduated from the latter institution in 1865, soon afterward beginning practice in this city. He was a member of the Board of U. S. Examining Surgeons for Pensions from 1886 to 1889, lecturer on Diseases of Children in Starling Medical College from 1889 to 1891, and Professor of the same Chair for the following three years, in which position he acquitted himself to the satisfaction of the faculty, and was popular with the student body.

In 1896, his health failing, he went to Florida, where he had charge of a sanitarium, a portion of his time being devoted to travel, in the hope of regaining his health. He leaves a widow and one daughter.

Medical News Notes.

Dr. H. J. Young was married at Lancaster, O., in September.

Twenty-two cases of measles are reported at Columbus Barracks.

The institution for the Blind reports twenty-five cases of scarlet fever.

Dr. Adam H. McCullough has been elected health officer of Mansfield.

Dr. J. H. J. Upham was called to Philadelphia by the death of his mother.

Dr. Walter W. Brand was re-elected health officer of Toledo, November 24.

Dr. Peter S. Greenamyer died in October at his home in Orrville, For many years before moving to Orrville he had practiced medicine at Smithville.

Dr. G. F. Lower of Port Washington, Tuscarawas County, was compelled on account of poor health to give up his practice and is now in Albuquerque, New Mexico.

Number 11, Volume 2 (May, 1884), of this JOURNAL is wanted to complete our file. Anyone supplying it will confer a great favor, and receive pay for same.

The State Board of Health of Butler, Pa., met November 28, to investigate the cause of an epidemic of typhoid at that place, where more than 1,200 cases have been reported.

Dr. Scott Fulton has returned from Chicago, where he has been spending some time with Professor Fenton B. Turck, in his Institute for the treatment of "Gastro-Intestinal Diseases."

At the December 21st meeting of the Columbus Academy of Medicine officials will be elected for the ensuing year. Dr. C. A. L. Reed, of Cincinnati, by invitation, will deliver the address of the evening. Refreshments will be served and a portion of the time devoted to social intercourse.

DEATHS IN BALTIMORE.—For the week ended November 28 (J. A. M. A.), 177 deaths and 79 births were reported. The annual death rate was 16.50 per 1,000. Among the causes of death were consumption, 23; Bright's disease, 21; pneumonia, 14; cancer, 6, and typhoid fever, 5.

DEATHS IN COLUMBUS FOR NOVEMBER, 1903.—General diseases—typhoid fever, 3; malaria, 1; smallpox, 2; measles, 1; erysipelas, 1; septicemia, 1; tuberculosis of lungs, 15; tuberculosis of bowels, 1; cancer, 7; anemia, 1; rheumatism, 1; diabetes, 3; alcoholism, 2. Diseases of the nervous system and of the organs of special sense—locomotor ataxia, 1; diseases of the spinal cord, 3; congestion and hemorrhage of brain, 8; epilepsy, 1; convulsions (under five years) 1; insanity, 1; other diseases of nervous system, 1. Diseases of the circulatory system—organic heart disease, 12; pericarditis, 1; diseases of arteries, 1; diseases of veins, 1. Disease of the repiratory system—disease of thyroid body, 1; chronic bronchitis, 3; bronchopneumonia, 3; pneumonia, 13; pleurisy, 1; asthma, 2. Diseases of the digestive system—disease of stomach, 4; enteritis (under 2 years), 1; diarrhea and enteritis (over 2 years), 2; cirrhosis of liver, 1; hepatic abscess, 1; peritonitis, 1; appendicitis, 1. Diseases of the genitourinary system—acute nephritis, 1; Bright's disease, 5. Diseases of the puerperal state—accidents of pregnancy, 2. Congenital debility—asphyxia, 1. Diseases of old age—senility, 7. External causes—suicide by firearms, 1; accidents, railroad 2, explosion 3, machinery 3, falling 2, burns 4; ill defined diseases, 10. Total number of deaths from all causes, 145; premature births, 3; still births, 10.

Recent Medical Books.

Books Received During November.—Orthopedic Surgery. Whitman. Lea Bros. & Co., publishers.

American Pocket Medical Dictionary. By Dorland. W. B. Saunders & Co., publishers.

A Manual of the Practice of Medicine. By Stevens. W. B Saunders & Co., publishers.

American Illustrated Medical Dictionary. By Dorland. W. B. Saunders & Co., publishers.

Saunders' Medical Hand Atlas, Eye. By Haab. W. B. Saunders & Co., publishers.

Four Epochs of Women's Life. By Galbraith. W. B. Saunders & Co., publishers.

A Text Book of Pathology. By Stengel. W. B. Saunders & Co., publishers.

Text Book Upon the Pathogenic Bacteria. By McFarland. W. B. Saunders & Co., publishers.

Manual of Medicine. By Monroe. W. B. Saunders & Co., publishers.

A Text Book of Obstetrics. By Hirst. W. B. Saunders & Co., publishers.

A Text Book of Diseases of Women. By Hirst. W. B. Saunders & Co. publishers.

American Text Book of Surgery. By Keen. W. B. Saunders & Co. publishers.

Modern Surgery. By DaCosta. W. B. Saunders & Co., publishers.

Quiz Compend "Gynecology." By Willis. P. Blakiston Sons & Co., publishers.

Medical News Visiting List. Lea Bros. & Co., publishers.

Normal Histology. By Wathen and Pedersen. Lea Bros. & Co., publishers.

Infectious Diseases. By Roger. Lea Bros. & Co., publishers.

Pathology and Therapy of Disorders of Metabolism and Nutrition. By Von Noorden. E. B. Treat & Co., publishers.

MEDICAL NEWS VISITING LIST, 1904. Thirty patients per week. Lea Bros. & Co., Philadelphia, Pa.

The Medical News Visiting List for 1904 is now ready for distribution. This valuable multum in parvo has been in the market so long that it scarcely needs any special mention. The text portion has been thoroughly revised and brought up to date. M.

EGBERT'S HYGIENE. New (3d) edition. A Manual of Hygiene and Sanitation by Seneca Egbert, M. D., Professor of Hygiene in the Medico-Chirurgical College of Philadelphia. New (3d) edition, enlarged and thoroughly revised, in one 12mo. volume of 467 pages with 86 illustrations. Cloth, $2.25 net. Lea Brothers & Co., publishers, Philadelphia and New York.

The demand which has so soon made possible and necessary a new edition of this work proves two things conclusively, the interest of the profession and laity in hygiene and sanitation, and the author's success in furnishing a clear, trustworthy and complete resume of this important subject. Dr. Egbert is to be congratulated upon this exceptionally valuable little volume. The present edition has been revised to date. It is evident that every line has been scanned carefully and in his endeavor to prune carefully, both the old and the new growth, the volume has increased by more than one-third over its original size.

If, then, the most modern, complete, trustworthy, interesting and practical manual on hygiene is wanted by students, practitioners or laymen, that demand is most satisfactorily met by Egbert. M.

LEA'S SERIES OF MEDICAL EPITOMES. HALE'S EPITOME OF ANATOMY. A Manual for Students and Physicians. By Henry E. Hale, A. M., M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons (Columbia University), New York. In one 12mo volume of 384 pages, with 71 illustrations. Cloth, $1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

This epitome gives a complete outline of human anatomy, every step being taken in natural sequence, so that the student gets a perspective of the entire subject into which the details from his "Gray" may be readily fitted. Students and practitioners will find it very convenient for brushing up on anatomy.
M.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA. For students of medicine and physicians. By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the Medico-

Chirurgical Colege Philadelphia; Pathologist to the Philadelphia Hospital and to the Medico-Chirurgical Hospital, Philadelphia. Handsome octavo volume of 629 pages, fully illustrated, a number in colors. Philadelphia New York, London: W. B. Saunders & Co., 1903. Cloth, $3.50 net.

This work gives a concise description of the technical procedures requisite in the study of bacteriology, a brief account of the life histories of the important pathogenic bacteria, and sufficient description of the pathologic lesions accompanying microorganismal invasions to give an idea of the origin of symptoms and the causes of death. All the old matter has been elminated, much new matter is in evidence, and, in fact, the subjects treated have been brought precisely down to date. What impressed us most were the chapters upon Infection and Immunity. All the new facts recently added to our knowledge of these subjects can here be found. Altogether the work in its new edition is very commendable, and practitioners and students will find it of unusual value. M.

AMERICAN TEXT-BOOK OF SURGERY. For Practitioners and Students. Edited by Williams W. Keen, M. D., LL. D., F. R. C. S. (Hon.), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; and J. William White, M. D. John Rhea Barton, Professor of Surgery, University of Pennsylvania, Philadelphia. Fourth Edition, Thoroughly Revised and Greatly Enlarged. Handsome octavo of 1363 pages, with 551 text-illustrations and 39 full-page plates, many in colors. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $7.00 net; Sheep or Half Morocco, $8.00 net.

The remarkable sale of the former edition of this work has been phenomenal. The present edition deserves still greater patronage. Every chapter has been extensively modified, and many many of them have been partially, and some entirely, rewritten. Notably among such chapters are those on Surgical Bacteriology, Tumors, the Osseous System, Orthopedic Surgery, the Surgery of the Nerves, the Joints, the Abdomen, etc. The most recent researches of Monks on the Intestines, Crile and Crushing on Shock and Blood Pressure, Matas on Neural Infiltration and Aneurysm, Edebohls on Renal Decortication, etc., have been included. The use of parafine in nasal deformities, the methods of spinal and local anesthesia, and the newer anesthetics have also been described. And this is but an illustration of the completeness an dthoroughness of the entire work.

Besides the extensive revision and amplification of the old matter, there have been added six new chapters of the utmost importance, written by men whose positions and experience especially fit them to speak with authority. These chapters are

Military Sugery, Naval Surgery, Tropical Surgery, Examination of the Blood, Immunity, and Surgery of the Pancreas. Though there was a brief chapter on the Pancreas in the third edition, in this present edition it has been expanded so greatly that it really is wholly new, the modern surgery of the Pancreas having been created since the last edition. A number of the old illustrations have been replaced by better ones, and, in addition, there have been added a number entirely new. In fact, we know of no single volume work that is even its equal in the expounding of the advanced and practical principles of modern surgery. M.

MODERN SURGERY: GENERAL AND OPERATIVE. By John Chalmers Da Costa, M. D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College Philadelphia. Handsome octavo volume of 1099 pages, with over 700 illustrations, some in colors. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net.

This work presents in a concise form the fundamental principles and the accepted methods of modern surgery. Obsolete and unessential methods have been excluded in favor of the living and the essential. The author's extensive expeiernce as a teacher is evident throughout the entire work, the statements being clear and to the point.

The pogress of surgery in every department is one of the most notable phenomena of the present day. So many improvements, discoveries, and observations have been made since the appeaarnce of the last edition of this work that the author found it necessary to rewrite ti entirely. In this fourth edition the book shows evidences of a thorough and careful revision, and there has been added much new matter. There have also been added ove rtwo hundred excellent and practical illustrations, greatly increasing the value of the work. Because of the great amount of new matter it has been deemed advisable in this present edition to adopt a larger type page. This is a great improvement, rendering, as it does, the work less cumbersome. The book will be found to experss the latest advances in the art and science of surgery. We cetrainly recommend it. M.

THE AMERICAN POCKET MEDICAL DICTIONARY. Edtied by W. A. Newman Dorland, M. D., Assistant Obstetrician to the Hospital of the University of Pennsylvania. Containing the pronunciation and definition of the principal words used in medicine and kindred sciences, with 566 pages and 64 extensive tables. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Flexible leather, with gold edges, $1.00 net; with thumb index, $1.25 net.

In this little work, now in its fourth edition, we have a pocket dictionary equaled by none on the market. In this edition several thousand of the newest terms that have appeared in recent medical literature have been added, and the entire work subjected to a careful revision. Since the work has come to us for review, we have had many occasions to refer to it for definitions of new words, and in no instance have we been disappointed. M.

A MANUAL OF THE PRACTICE OF MEDICINE. By A. A. Stevens, A. M., M. D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal Hospital and to St. Agnes' Hospital; Fellow of the College of Physicians of Philadelphia, etc. Sixth Edition, Thoroughly Revised, Enlarged and Reset. Handsome Post-octavo of 556 pages, illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Flexible Leather, $2.25 net.

The popularity of this manual on the Practice of Medicine can be attested for by its numerous editions. The work covers completely the ground gone over by the student, especial stress being laid on diagnosis, differential diagnosis, and treatment. This sixth edition has been entirely reset and greatly enlarged, without changing, however, the original style of the work. Many articles, notably those on Diseases of the Digestive System, Diseases of the Myocardium, Malaria, Diseases of the Blood, Gout, Diseases of the Spinal Cord and Larynx, have been entirely rewritten, thus bringing the work absolutely abreast the times. After a careful examination we can unhesitatingly recommend this book to students. M.

THE FOUR EPOCHS OF WOMAN'S LIFE. Maidenhood, Marriage, Maternity, Menopause. By Anna M. Galbraith, M. D., Author of "Hygiene and Physical Culture of Women; Fellow of the New York Academy of Medicine, etc. With an I ntroductory Note by John H. Musser, M. D., Professor of Clinical Medicine, University of Pennsylavnia. 12mo volume of 247 pages. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $1.50 net.

This work, written for the nistruction of the laity on subjects of which every woman should have a thorough knowledge, is indeed a timely and excellent one.

The language used is clear and comprehensive, yet, withal, modest, and the meaning easily grasped even by those unfamiliar with medical subjects.

In this new edition the author has made some excellent additions, viz: A section on the "Hygiene of Purberty"; one on

"Hemorrhage at the menopause a Significant Symptom of Cancer," and one on the "Hygiene of the Menopause." These sections make the work the very best on the subject we have seen, and physcians will be doing a real service by recommending it to their patients. M.

Lea's Series of Medical Epitomes. Wathen's Epitome of Histology. A Manual for Students and Physicians. By John R. Wathen, A. M., M. D., Professor of Surgery, etc., formerly Professor of Histology and Pathology, Kentucky School of Medicine, Louisville, Ky. 12mo 220 pages, 114 illustrations. Cloth, $1.00 net. Lea Brothers & Co., Publishers. Philadelphia and New York, 1903.

Compend of Gynecology. By Wm. H. Wells, M. D., Philadelphia, Pa. Third edition, revised, enlarged with 145 illustrations. Publisher, P. Blakiston's Son Co., Philadelphia, Pa.

These compends are based on the most popular text-books and lecturers of prominent professors, and are kept constantly revised, so that they may thoroughly represent the present state of the subjects upon which they treat. M.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Handsome octavo, 900 pages, with 746 illustrations, 39 of them in colors. Phlaidelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net.

In revising his work for this edition, the author has spared no pains to make the book reflect the latest knowledge on the subject. He has even described and illustrated the method of using the "Neumann Ehrenfest Kliseometer." His perfect famliarity and extensvie experience with diseases of women is shown in the careful and minute manner n wihich he describes the various methods of treatment. In this work every page has been altered and bettered in some way. More attention has been given than in the previous editions to the diseases of the genital organs associated with or following childbirth, and this, we think, is an excellent improvement. Many of the old illustrations have been replaced by better ones, and there have been added besdies a number entirely new. The work trats the subject from a clinical standpoint, the author ever keeping in mind that the aim of all medical literature is to cure. M.

Whitman's Orthopedic Surgery. New (2d) edition. A Treatise on Orthopedic Surgery. By Royal Whitman, M. D., Instructor in Orthopedic Surgery in the College of Physicians and Surgeons (Columbia University), New York; Associate Surgeon to the Hospital for Ruptured and Crippled; Orthopedic Surgeon to the Hospital of St. John's Guild; Chief of the Orthopedic Department of the Vanderbilt Clinic, etc. New (2d) edition, thoroughly revised and much enlarged. In one octavo volume of 820 pages, with 507 engravings, mostly original. Cloth, $5.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Orthopedic surgery occupies a broad field and one of very great and general interest. Its most distinctive advance in recent years has been toward the prevention of deformity, an advance that has been made possible by the better understanding of its predisposing and exciting causes. As a natural consequence, treatment has become more direct, more simple, and more effective.

The author rightly construes the early exhaustion of the first edition as evidence that it has met the demands of the profession. The consideration of new subjects, the more extended description of others, and the addition of some sixty new illustrations, have resulted in a material enlargement of the book, but the general characteristics of the first edition have been retained, and the certainty of a still wider usage enables its issue without increase of price. M.

ROGER ON INFECTIOUS DISEASES. Their Etiology, Diagnosis and Treatment. By G. H. Roger, Professor Extraordinary in the Faculty of Medicine of Paris, etc., translated by M. S. Gabriel, M. D., New York. In one octavo volume, of 864 pages, with 43 illustrations. Cloth $5.75, net. Lea Brothers & Co., Philadelphia and New York, 1903.

This volume comprehends almost the entire scope of internal medicine and touches upon many of the principles underlying modern surgery as well. It could not have been prepared by a laboratory investigator, however brilliant; not by a clinician, however extensive his experience; its creation remained for one who combines the instincts and training of a student in original research with almost unprecedented opportunities for clinical investigation.

Never losing sight of the fact that the purpose of the laboratory is to amplify and explain clinical observations, Professor Roger has pursued clinical and experimental researches in the closest relation to each other. In this work he unfolds the knowledge of his subject by simple and practical methods. He first studies the pathogenic agents, inquires into their distribution in nature, the conditions under which they attack men and their modes of invasion. Full consideration is then given to their influence upon the human economy and the reaction of the latter upon the invaders. Ample time and space are devoted to questions of diagnosis and prognosis and that the work is eminently practical is shown by the fact that more than a quarter of the volume is devoted to treatment, both preventive and curative. The effect and purpose of this work is to harmonize any seeming antagonism between experimental researches and clinical observations and to reduce the theories of infection and immunity to a basis of practical utility. D.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M. D., Ph. D., LL. D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Sixth Edition, Thoroughly Revised. Handsome octavo volume of 1300 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $5.50 net; sheep or half morocco, $6.50 net.

This is the sixth edition of this unexcelled work in as many years. Such a sale cannot but be a gratification alike to the author and to the publishers. In this edition the general plan and principles of classification adopted in the previous editions have been preserved. The many tabular presentations of points in differential diagnosis have been retained. Differential diagnosis is a most important branch of diagnostics, and than this tabular method we know of no superior way of familiarizing the practitioner and the student with the outstanding features of simulating diseases. Malaria, yellow fever, bacillary dysentery, cholecystitis, certain animal parasitic diseases and the use of the X-rays in diagnosis and treatment have been fully discussed, incorporating the results of the most recent investigations. Among the new subjects introduced are Paratyphoid Fever, the Fourth Disease, Trypanosomiasis Orthostatic, Albuminuria, Transccortical Aphasia, Adiposis Dolorosa, and Amaurotic Family Idiocy. Every affection has been treated separately, particular attention being paid to its clinical character, diagnosis, and treatment. Evidently an immense mass of literature has been thoroughly digested, no pains having been spared to bring the entire work down to date, giving special reference to the daily needs of practititioners and students. D.

A TEXT-BOOK ON THE DISEASES OF WOMEN. By Thomas A. Ashly, M. D., Professor of Diseases of Women in the University of Maryland; Fellow of the American Gynecological Society, etc., etc. Published by Williams & Wilkins Co., 1903, Baltimore, Md.

This work has been prepared for the use of medical students and practitioners of medicine. Much pains has been taken in describing the various methods employed in arriving at a correct diagnosis of the diseases of women. The subject of Aseptic Surgery has been described with great care as well as the technique of the work. The arrangement of the work has been prepared with a view to lead the student gradually from a simple to a more complex condition of the treatise. It is a work thoroughly up to the times and I take pleasure in recommending it to the profession. D.

NERVOUS AND MENTAL DISEASES. By Archibald Church, M. D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and Frederick Peterson, M. D., President New York State Commissioner in Lunacy; Chief of Clinic Department of Nervous Diseases, College of Physicians and Surgeons, New York. Fourth Edition, thoroughly revised and enlarged. Handsome octavo volume of 922 pages, with 338 illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Cloth, $5.00, net; sheep or half morocco, $6.00, net.

This is the fourth edition in as many years. The revision, indeed, has been thorough, all the latest knowledge on the subjects having been mentioned, including the recent work regarding the leading nerves.

The subject of Intermittent Limping, now definitely known to depend upon a lesion of the posterior root ganglia, and Herpes Zoster, has been given a section each. Another addition is the discussion of that form of epilepsy marked by myoclonus, furnishing the so-called combination disease.

Further importance has been given to symptomatology and symptomatic disturbances and the diagnostic value of astereagnosis and of Kernig's Sign has been elaborated. We also find that there has been added a large number of new and excellent illustrations.

A useful addition to the portion of the book devoted to insanity is a new section, consisting of a critical review of the German schools which have recently made such important advances in phychiatry.

In many ways this work will be found of unusual assistance not only to the specialist, but also to the student and general practitioner. D.

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Extract from a paper published in the New England Medical Monthly, October, 1899, by Henry S. Pole, M. D., Hot Springs, Va., Member of the Virginia State Medical Society, etc.

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Extract from a paper published in the National Medical Review, Washington, D. C., November, 1899, by William Porter, M. D., St. Louis, Mo., Professor of Physical Diagnosis and Diseases of the Chest, at the Beaumont Medical College; ex-President of the Mississippi Valley Medical Association; formerly Assistant at the Golden Square (London) Throat and Chest Hospital; Assistant to the late Morell MacKenzie.

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Columbus, Ohio.

PRACTICAL EXPERIMENTS IN THE TREATMENT OF ANEMIC CONDITNONS.

BY FRITZ EULER-ROLLE, M. D., OF VIENNA.

(Continued from last issue.)

In the following I have made a selection from this number, and almost every case illustrates the remarkable value of the preparation.

J. P., aged 33 years, butcher's assistant, consulted me June 2, complaining of constant vomiting and very violent colicky pains which occurred soon after taking food of any kind. The vomited matter contained almost always the entire food ingested, and on one occasion a moderate quantity of black coagulated blood. Pressure upon the stomach was quite painful. The diagnosis of ulcer of the stomach, to which the symptoms pointed, was discarded after a more thorough examination revealed symptoms characteristic of a tabes dorsalis. The patient within a short time had become markedly emaciated, having lost eight kilos in weight. He had acquired syphilis twelve years previously during his military service. The attacks affecting the stomach therefore proved to be gastric crises. After they had diminished in frequency and intensity under the use of hot poultices and strict diet, Pepto-Mangan (Gude) was prescribed at the beginning

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Camphor, ¼ gr.
Opium, 1-10 gr.
Capsicum, ¼ gr.
Tr. Aconite, ⅛ min.
Atropine Sul., 1-1000 gr.
Calomel, 1-10 gr.

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of July. At first three tablespoonfuls were given daily, added to milk, and later, when it was found that the preparation was well tolerated, it was increased to six tablespoonfuls. After the sensitiveness of the stomach had gradually subsided the patient could be discharged from treatment in the middle of August, having regained his weight with the exception of a trifle, while the crises had completely ceased.

In a case of uncontrollable vomiting in an anemic woman, 24 years old, during her first pregnancy, pepto-mangan was administered in the quantity of three tablespoonfuls daily, to which were added small amounts of cold milk. Hot applications with the thermophor were also employed. After less than four weeks the patient was discharged from treatment, improved, without any loss of weight.

Another observation relates to a case of inoperable cancer of the esophagus. The patient, 62 years old, had suffered since about one and one-half years from the neoplasm, but up to six weeks ago had been able to take, without any trouble, soft foods. Since that time, however, he had been able to swallow only small amounts of fluid. One morning, as usual, he had introduced a stomach tube himself, but during its withdrawal experienced violent pain. Since then he had constantly expectorated blood. Under the use of morphine injections and the application of the ice-bag to the thorax, rest upon the back, and complete abstinence from any food, his condition improved, and on the following day a nutritive enema, consisting of milk, eggs, and red wine, with the addition of four teaspoonfuls of Pepto-Mangan (Gude) and twenty drops of tincture of opium, was administered. On the next day the same was done. After the hemorrhage had permanently ceased, nutrition by enema was supplemented by administration per os of milk and pepto-mangan in small amounts, which were well tolerated. In this way it was found possible to keep up the nutrition for a considerable time in a comparatively satisfactory manner.

(Continued in next issue.)

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